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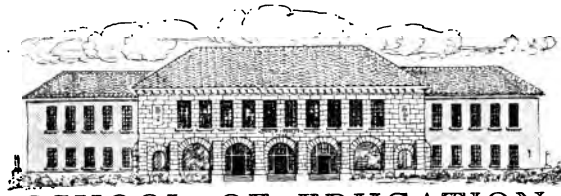
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SCHOOL PROJECT SERIES

EDITED BY W. F. RUSSELL, PH. D.

THE REDIRECTION
OF HIGH SCHOOL
INSTRUCTION



HERBERT GIULL, PH.D.
H.B. WILSON, A.M., LL.D.



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THE REDIRECTION OF HIGH-SCHOOL INSTRUCTION

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PREFACE

THE central problem of this book is to discover and organize the functional elements of high-school instruction. The view that the school is an instrument of social interpretation, social adjustment, and social control is maintained throughout. The problems of instruction are approached from the viewpoint of social processes and values. The word *instruction* is used in a broader sense than is usually implied in the word *method*. Within the broader meaning of instruction the authors have not hesitated to discuss questions involving the administration of the curriculum, the administration of student activities, and the selection and evaluation of subject-matter, whenever they are related directly to the student's learning processes in the realization of educational values.

The authors have ventured to state the main problems of junior and senior high-school instruction and to suggest solutions for them in part by applying the theory of the Social Core of the High-school Curriculum.

It is hoped that this book may be of use to teachers in college and university departments of education and in normal schools engaged in the preparation of high-school teachers. It should, also, be used successfully by high-school teachers' reading circles.

We are greatly indebted to several educators who have given constructive criticisms upon the manuscript, and we are especially indebted to the following super-

visors of the Kansas State Normal School for their contributions to the chapter on "Project-problem Instruction": Miss Florence Billig, Miss Jennie Williams, Miss Avice Wright, and Mr. J. H. Wilson. We are, also, under obligation to Mr. W. H. Kerr, head librarian, and Miss Agnes King, reference librarian, of the Kansas State Normal School, for selecting and arranging the reference materials cited in this book.

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THE REDIRECTION OF HIGH-SCHOOL INSTRUCTION

CHAPTER I

THE TRADITIONAL AND FUNCTIONAL ELEMENTS OF INSTRUCTION

How to make the school of more service socially, is a problem of instruction which is constantly recurring. Like all other institutions the school carries along many traditional elements. The traditional features of instruction tend to accumulate and consume time and energy which are necessary in satisfying present needs. Many of them were originally introduced in response to social conditions which no longer exist. For example, the need of the Puritans for certain phases of classical instruction ceased to exist over a century ago. The Puritan demand required a certain formal grammatical treatment with little attention to the humanistic content of the classics. Since that time the social values of classical instruction have varied widely. On the other hand, the tendency of the school has been to retain certain methods of the treatment of the classics far beyond the period of their usefulness.

The school's inertia in retaining obsolete forms and practices lies not only in the older branches, but also, in the methods and in a large amount of subject-matter of more recent origin which the school continues to use many years after they should have been sloughed. The modern branches like the ancient tend to retain methods and materials the values of which have ceased to exist.

The retention of the study of points of strategy in the military campaigns of the American Revolutionary War and the Civil War, in United States history, the study of the least common multiple and the highest common divisor as separate subjects in algebra, and the study of the gerund, the gerundive, the factitive object and other purely technical matters in English grammar, when the student should be learning how to construct clear and forceful sentences in common oral and written discourse, are all typical illustrations of this tendency. Other examples of the retention of obsolete subject-matter and methods will readily occur to the reader.

Traditional instruction is not to be eliminated just because it is traditional. Only such traditional instruction as no longer performs a needful service should be dropped. Indeed, much of the so-called elimination which is receiving attention to-day is not elimination at all, but rather the redirection of old subject-matter toward the realization of new purposes. Of late years there has been much discussion regarding the elimination of English grammar from the curriculum of the upper grades and even from the high school. The real question involved, however, is not whether English grammar shall be retained or dropped, but rather what functions shall it perform and how shall its content be used. The study of grammar is needed now more than ever, not as formerly regarded for formal disciplinary purposes or as preparation for the study of Latin, but as an instrument supplementing the imitative processes of language development. It provides the student with a critical language consciousness by which he may judge of the correctness and to some extent of the effectiveness of his word forms and sentences acquired by imitation. Not long ago the classification of plants constituted the entire study of botany in the high school. Later, plant morphology occupied the centre of

attention, and now the life conditions, habitats, physiology, and the relations of plant to man are emphasized in the high-school botany course. The subject of history was once taught as a study in chronology—a series of dates of events regarded as important. Later, history was treated as the orderly development of human society. The subject was worked out by reasoning by inference, analogy, and from cause to effect. Upon this method of treatment the civic motive is having its effect in the reorganization of high-school history courses at present. This is particularly true of United States history.

The determination of the functions of subject-matter, therefore, constitutes the working principle for the redirection of instruction. By redirection is meant the application of the view that the school is primarily an institution designed to render social service rather than to carry forward traditional information and traditional individualistic disciplines. In schools undergoing processes of redirection the merely traditional elements of instruction lose their former prestige. Whether a given branch can survive or not will depend upon its revaluation in terms of present social needs.

The problem of the educational executive is to organize and utilize the functional elements of instruction effectively and to eliminate the non-functional. To assist him we shall propose a program of instruction from the viewpoint of the social and psychological needs of high-school students.

CHAPTER II

THE SOCIAL CORE OF THE HIGH-SCHOOL CURRICULUM

THE TRADITIONAL THEORY OF CONSTANTS

TRADITIONALLY the purpose of the constants of the secondary school curriculum has been to meet certain needs thought to be fundamental. Latin with its auxiliary lines of instruction, constituting the constants of the colonial Latin Grammar School, was supposed to meet the professional needs of the time by giving boys their foundational training for the ministry. By slow degrees the academies and the early high schools were permitted by the colleges, in response to other social demands, to add to the ancient language core such constants as mathematics, English, science, and history.

The growth of the modern cosmopolitan high school, with its increasing and varied functions, has made the old plan of curriculum-making impracticable. In recent years the reverse movement of eliminating certain constants has taken place and at the same time there has been a growing recognition of the value of elective subjects. The classics were the first to be dropped from the list of constants. Then followed the withdrawal of the requirement of any foreign language for high-school graduation. Mathematics is now a questionable constant and science must be a general and a highly socialized science to escape criticism as a constant.

There seem to be no clearly defined principles guiding the curricular changes of the high school. Although there has been a remarkable uniformity of practice, the question of what subjects should be included in the core of con-

stants has been decided by the colleges and universities on the basis of traditional tendencies and present social expediency rather than on that of principles based upon the fundamental needs of high-school students. Subjects have been made the constants of the high-school curriculum for a variety of reasons. Among the reasons assigned for including subjects in the core of constants were the following: In some cases a subject was included for its professional values and when these values were not in evidence it was included for its disciplinary, cultural, or college preparatory values. In recent years much has been made of vocational, civic and physical development values, as reasons for prescribing certain subjects. As new subjects representing new values have gained recognition, their advocates have sought to find a place in the sun for them.

At all times the college has sought to be the final arbiter in deciding what values should determine the constants of the high-school curriculum. The constants are usually the prescribed college admission requirements; and there seems to be no other reason for their present arrangement. In view of the development of our cosmopolitan world-serving high schools, turning a very small percentage of its students collegeward, and in view of the increasing needs of the people for collective action, guided by common social insights, which are not developed by the present core of college requirements or constants, it appears that we need a new theory and practice of high-school curriculum-making.

THE SOCIAL THEORY OF CONSTANTS

A more rational theory of constants may be stated as follows: The constants of the high-school curriculum should contain only those lines of common knowledge and training which individuals of a democracy must

have to live together as free and responsible citizens. Stated concretely there should be no subjects prescribed for all students of the high school which do not deal directly with problems of health and physical efficiency, citizenship, and the means of communication through the vernacular.

We shall appreciate the bearings of our question better by first considering it in relation to the elementary school and the junior high school. Without defining the varied aims of elementary instruction, it is sufficient to state that the children are securing a foundation of common knowledge and training out of which will develop their special lines of work and interests, together with an inner core of common knowledge and training, emphasizing English, health, and citizenship. This differentiated stage of work should begin to emerge in the junior high school.

A large line of elective offerings should be provided in the junior high school in order that all pupils with their various dominating interests and vocational aptitudes may have ample opportunities for self-discovery under careful direction of the teachers and the vocational counselor. As the pupil passes through the junior high school his prescribed subjects, brought forward from the elementary school, should gradually narrow down to English, general science (including community sanitation), citizenship studies, and physical training (including personal hygiene); while his opportunities for electives should gradually increase.

Such an arrangement of subjects, however, will mean little in helping the pupils to discover their special aptitudes and interests unless their studies are used as instruments of social interpretation. When the pupils have finished the work of the first six grades they should have a reasonable mastery of the technic of the common branches in order that the major emphasis in the junior

high school may be placed upon the use of the technic. Of course, the junior high school, or even the senior high school and the college, for that matter, are not absolved from teaching the technic of subjects. The change from the emphasis upon the acquisition of the technic to the use of the technic of subjects is gradual. The child in the first four grades is primarily engaged in acquiring the technic of reading, writing and arithmetic, and to a less extent the technic of music and industrial arts, including drawing, painting, etc. In the fifth and sixth grades the pupils have, generally speaking, a sufficient reading vocabulary to begin reading for thought, a sufficient command of spelling and writing to begin writing original compositions, a sufficient control of number combinations to apply them to practical problems found outside the textbook, a sufficient grasp of musical notation to do simple sight-singing and to work out simple harmonies, and sufficient skill in using pencil, crayon, scissors and shop tools to work out simple and original designs in drawing and simple projects in manual training.

As the pupil passes into the junior high school the emphasis upon the acquisition of the technic of subjects should gradually shift to the use of the technic as tools in securing new ideas and appreciations, solving problems, and executing projects. However, this distinction between the instruction of the elementary grades and that of the junior high school is only a distinction of emphasis, and it should vary in different kinds of activities. As the pupil goes into the junior high school he should study arithmetic more to solve home, school and community problems than to solve problems as a preparation for more mathematics, although the latter phase should not be neglected. He should write compositions primarily to express himself fully, freely and originally to his fellows rather than to learn the technic of punctuation,

sentence structure, and the like, although constant attention to improvement in these matters is very necessary. By means of the trying-out processes in applying the social test to the pupil's studies and activities and by other means of guidance, he ought to be fairly well prepared, when he enters the senior high school, to choose the lines of work which will meet his special needs—vocational, avocational and cultural.

If we have characterized the work of the junior high school correctly, then it is clear that the curriculum of the senior high school as it now stands should be reorganized. The time has nearly arrived when the constants of the high-school curriculum will no longer consist of a core of subjects for disciplinary, general cultural, or vocational and professional purposes. Neither the need of training for citizenship nor for the vocations can be satisfied longer by arranging the courses under the traditional captions of "English Course," "Classical Course," "Latin-scientific Course," "Scientific Course," etc. These old disciplinary and knowledge classifications have little meaning for students and teachers alike. There is little in such classifications that indicates definite purpose in the selection of branches or in the treatment of subject-matter.

Preparation to enter college or university is usually a preparation to enter ultimately some one of the professions such as teaching, law, medicine, engineering or the ministry. In the main, the preparatory course relating to these several professional destinations is fairly well determined. It consists of at least three years of English, two years of foreign language, one year of ancient, mediæval, English, American, or modern European history, one and one-half years of mathematics, one year of science (usually physics), and six and one-half years of electives. In case students are

planning to become engineers they should plan to elect more mathematics, physical and chemical science; to become physicians, more biological, chemical, and physical science; to become lawyers, more English, history, and language; to become ministers, more English, history, social science, and language; or, to become teachers, more of the subjects in which they wish to specialize. It ought to be perfectly clear, however, that because the universities require eight or nine units of certain subjects for admission, constitutes no adequate reason for making these requirements the constants of the high-school curriculum. The decision to go to the university is an elective decision just the same as the decision to elect woodwork when one chooses to become a carpenter is an elective decision. If a student decides to go to the university he should choose the grouping of subjects which will best prepare him to enter and pursue his university work, or, if he desires to become a machinist, he should choose the grouping of subjects which will best prepare him for that work. Preparation for entrance to the university or a vocation at the end of the high-school course is an election, and neither kind of preparation should have any weight in determining the prescribed subjects for *all* high school boys and girls.

Fortunately there is no longer any need of making high-school constants and university admission requirements synonymous terms. Since 1890 the colleges and universities have steadily increased the number of optional subjects which may be offered for admission. A system of "High-school Exemptions" is being introduced in the universities. This system might well be called a "High-School-University-Reciprocity Treaty," because when a student enters with a certain number of credits in science, mathematics, language, etc., he is not required to take

these subjects in the university, and when he enters without the required number of credits in the entrance subjects he must take them in the university, for which, however, he receives university credit. He may enter the university in either case without condition, provided he can present fifteen or sixteen units from an accredited high school. The student who plans well for admission under this system increases his opportunities for university election.

PROPOSED JUNIOR AND SENIOR HIGH-SCHOOL CURRICULA

Let us apply the theory of the social core and electives to curriculum-making, (1) of the junior high school, and (2) of the senior high school.

JUNIOR HIGH-SCHOOL CURRICULUM ¹

CONSTANTS AND ELECTIVES

Constants.—(1) *Major group, including English, United States history, community civics, and physical training (including personal hygiene).* The study of English should emphasize oral and written composition and should extend through the three years of the junior high school. United States history should extend through the seventh and the first half of the eighth years and community civics should be offered during the last half of the eighth and the first half of the ninth years. Physical training should extend through all three years.

Constants.—(2) *Minor group.* Certain other branches should be admitted to the junior high-school constants on condition that they be organized in such a way as to make important contributions to citizenship. This group should include *mathematics, elementary and general science, geography, and household arts for girls.*

¹ See Bibliography, page 274.

A highly-socialized form of mathematics should extend through the seventh and eighth years. It should be made a real instrument in solving social and economic problems which are significant in the common life of all junior high-school pupils. Elementary and general science should be highly socialized and it should include community sanitation. Elementary science should extend through the seventh and eighth years, and general science through at least one-half of the ninth year. Geography should be closely connected with elementary science; indeed, so closely connected that it will be the get-away-from-home part of the elementary science course. So organized, it should extend through the seventh and eighth years with elementary science. It may be debatable whether household arts should be prescribed for all girls in the junior high school. There is probably a common ground of experience within the large field of household arts which contributes to citizenship efficiency sufficiently to warrant its prescription for all girls through the seventh and eighth years.

Electives.—All other subjects should be placed in the elective list not to be chosen by any random method, but with certain definite purposes in view, such as: (1) the discovery of the pupil's vocational or profession aptitude; (2) his participation in recreational, avocational, æsthetic activities and appreciations; and (3) the stimulation as far as possible of the acquirement of general knowledge with resulting interests of world significance.

Other studies are to be excluded from the prescribed list not because they are less important, but because they are not of universal importance. Indeed as instruments in realizing particular purposes they are of highest importance, but they should be evaluated and taught with the appropriate purposes in mind.

22 THE REDIRECTION OF HIGH-SCHOOL INSTRUCTION

Among the controlling purposes of election in the junior high school is that of prevocational instruction. Such instruction is too often interpreted as consisting of manual projects in wood or other materials, having more or less industrial significance, and sewing and cooking for girls, paralleling, with little or no connection, the traditional subjects of the upper elementary grades or junior high school. Again, prevocational instruction is frequently considered important only for children retarded in the traditional branches or for the children of industrial workers.

The course in prevocational instruction should provide: (1) a variety of vocational experiences; (2) technical information and processes related to vocational experiences; and (3) supporting subjects treating such topics as the hygiene, civics and economics of the vocations. The first and second group of activities should be conducted by the same teachers. The third group of activities should be provided in the social core of the junior high school. These three phases of prevocational instruction should deal with the three major divisions of vocations: industry, commerce, and agriculture.

Prevocational instruction is a part of the larger program of vocational guidance. It is that part which furnishes vocational experience and vocational information. In the first stage of its development, vocational guidance was thought to consist in analyzing the vocations and the child's physiological and psychological characteristics as the basis of giving expert advice regarding the choice of a vocation. While this phase of the work is still important, it is now understood to be fundamental that the child should participate intelligently in making a choice of his vocation. Indeed, it is not imperative that *all pupils* should choose their vocations before finishing

the junior high school or even before finishing the senior high school. But in this country where every one should work, some vocational experience and some study of the great fields of human endeavor should be provided for in the curriculum of the junior high school. What specific vocational experience and what vocational information should be emphasized should depend, (1) upon the kind of community in which the school is located, and (2) upon the vocational aptitudes of the pupils.

In addition to the various prevocational opportunities, the junior high school should offer foreign languages, music, dramatics, drawing and painting of the fine arts type as activities calculated to assist in discovering the professional aptitudes of the pupils. These branches also will be important in discovering their avocational and cultural interests.

We have suggested three general groupings of studies—the citizenship, the vocational, and the professional and cultural. Of course, such group arrangements of studies are not mutually exclusive, because vocational, citizenship, professional, and cultural values are not mutually exclusive. At best, any grouping of subjects of instruction is only a grouping for emphasis. The problem is to help boys and girls find themselves. This problem cannot be solved by confining their work to prearranged courses. All of the junior high-school opportunities are for each pupil as far as he can make profitable use of them. Necessarily in a vocational guidance program there will be many “zig-zag” journeys, but the “zig-zagging” should be done as intelligently as possible.

Tabulated in general outlines, the curriculum of a junior high school of a small city might look like the following:

24 THE REDIRECTION OF HIGH-SCHOOL INSTRUCTION

JUNIOR HIGH SCHOOL.

	ELECTIVES.	CONSTANTS.	ELECTIVES.
	Guidance-Vocational.	Citizenship Knowledge and Activities.	Guidance-Professional, Avocational, Cultural.
7th	Industrial Drawing. Wood Work. Metal Work. Elem. Bus. Methods. Elem. Agriculture.	English. United States History. Physical Training. Elem. Sci.—Geog. Arithmetic Home Econ. (Girls).	Foreign Languages. Music (Voice and Instrumental). Dramatics. Art Appreciation. Drawing Painting.
8th	Industrial Drawing. Wood Work. Metal Work. Printing. Elem. Bus. Methods. Elem. Agriculture.	English. U. S. Hist. $\frac{1}{2}$, Com. Civ. $\frac{1}{2}$. Physical Training. Elem. Sci.—Geog. Arithmetic. Home Econ. (Girls).	Foreign Languages. Music (Voice and Instrumental). Dramatics. Art Appreciation. Drawing. Painting. Clay and Pottery.
9th	Industrial Drawing. Wood Work. Metal Work. Printing. Cement Work. Bookkeeping. Stenography. Typewriting. Bus. Arithmetic. Agriculture. Home Economics.	English. Physical Training. Com. Civ. $\frac{1}{2}$, Gen. Sci. $\frac{1}{2}$.	Foreign Languages. Music (Voice and Instrumental). Dramatics. Algebra. Debating and Oratory. Art Appreciation. Drawing. Painting. Clay and Pottery. Botany. History.

In each of the three years of the junior high school pupils could elect two or three subjects in addition to the required subjects or constants. By the time the pupil reaches the senior high school he should be able to elect groups of subjects relating to definite goals of achievement in the vocations, professions, etc. The constants of the senior high school should be limited to the "major group," including English, history, civics, and physical training and personal hygiene.

SENIOR HIGH SCHOOL CURRICULUM.
CONSTANTS AND ELECTIVE GROUPS.

	Elective groups, leading to vocations requiring less than college preparation.	Constants.	Elective groups, leading to college courses.
10th		English. Modern Contemporary World History. Physical Training.	
11th		English. American History. Physical Training.	
12th		English. Civics.* Physical Training.	

* Civics here should include economics.

In each of the three years of senior high school the pupils could carry from two to three units in their elective groups in addition to the required constants.

Assuming that the student has discovered his special vocational or professional aptitudes and avocational or cultural interests during the junior high-school period, what would be his senior high-school program? Supposing he desire to become an agriculturist, his program might be as follows:

Constants—

English	3 units
History	2 units
Civics	1 unit
Physical Training.	

Group Elected—Vocational—Agriculture—

Agriculture	3 units
Botany	1 unit
Physics or Zoölogy	1 unit
Farm Accounting	$\frac{1}{2}$ unit
Farm Carpentry	$\frac{1}{2}$ unit

Free Electives—Avocational, Cultural, etc.

One to three units.

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Suppose that a student wishes to enter the university, possibly to study medicine. His program might be as follows:

Constants (same as above)—

Group Elected—Professional—Preparing to study medicine.

Physics	1 unit
Chemistry	1 unit
Zoölogy	1 unit
Mathematics	1 unit
Foreign language	1 or 2 units

Free Electives—Avocational, Cultural, etc.

One to three units.

NOTE.—It is assumed that a student preparing to enter college will probably have elected at least one year of algebra and one year of foreign language in the junior high school.

In like manner programs for students of various vocational or professional destinations could be worked out. It should be noted in this connection that this method of program-making may readily be adapted to meet the requirements of the Federal Board for Vocational Education.

THE SOCIAL CORE OF THE CURRICULUM AS RELATED TO THE ELECTIVE GROUPS

The subjects of the social core strengthen vocational instruction (1) by making it unnecessary for vocational students to pursue the college preparatory subjects which are unrelated or, at best, remotely related to their vocational preparation, and (2) by furnishing supporting information and training for their vocational courses. English composition should use the vocational projects as content for themes. Civics should deal with the citizenship problems of the vocations, and United States history should include the more important developments in industrial history. (3) The subjects of the social core strengthen preparatory instruction by providing supporting information and training for branches which lead to the professions. English composi-

tion should deal to a considerable extent with the problems of the subjects of the preparatory group. Civics should include a study of the ethics of the professions and the opportunities and needs of professional service. United States History should deal, to some extent, with the development of the professions. (4) Finally, the social core provides a common ground for students of various aptitudes and interests and of different vocational or professional destinations where they may meet and discuss the problems of citizenship. The social core should provide an opportunity for boys preparing for the vocations to appreciate the industrial and social significance of their work. The sons of laborers, business men, professional men, and captains of industry, working together on the same problems of the subjects of the social core, should come to understand more fully the mutual responsibilities and interdependencies of the social classes which they represent. Such are the leading purposes of democracy's high school.

LOCAL ADAPTATIONS OF JUNIOR AND SENIOR HIGH-SCHOOL CURRICULUMS

The administration of the curriculums of the Junior and Senior High Schools of the Kansas State Normal School at Emporia is based upon the following general principles previously discussed, viz.: (1) The need for common knowledge and training which all individuals of a political and industrial democracy must have in order to live together as free and responsible citizens. (2) The need of differentiated knowledge and training for the vocations and professions which various groups of workers must have to be socially efficient in an industrial democracy. (3) The need for a variety of activities and studies which will develop and satisfy the individual

avocational bents of boys and girls—their play-life and cultural capacities.

These schools are small, having a combined enrollment of approximately three hundred pupils. Pupils entering the Senior High School, either from the Junior High School or other schools, are quite generally looking forward to higher institutional training for teaching.

Constants.—The curriculum of the Junior High School provides a core of constants as follows: (1) Major group, including English, United States history, civics, physical training (including personal hygiene); (2) minor group, including mathematics, elementary and general science, geography, and household arts for girls.

The subjects of both groups are required for their social, vernacular, physical development, and health values. For example, mathematics is used to solve the home and community life problems of the pupils; and general and elementary science deal quite largely with problems of home, community sanitation, gardening, food production and preparation, adulterations, water supply, etc. The minor group is differentiated into special elective groups, while the major group constitutes the constants, in the Senior High School.

Guidance Electives.—A few electives are offered the first and second years and a much larger number in the third year of the Junior High School. Girls of the first and second years are required to elect one subject, or they may elect two; and the boys are required to elect two subjects, or they may elect three. In the third year both boys and girls are required to elect two subjects or they may elect three.

Guidance Work.—A system of pupil guidance becomes very important in choosing elective subjects in the Junior High School. It is conducted as follows: The principal, beginning about one month before the close of each semes-

ter, calls each pupil into conference regarding his work for the following semester. New pupils, of course, entering school for the first time cannot be called into conference until the beginning of the term. Similarly, the principal then seeks a conference with the parents of each pupil. As a result of these principal-pupil-parent conferences, the pupils' elections for the following term are made. There is no effort made to influence pupils to carry any one elective subject, except foreign languages, more than one semester, although they may do so. Pupils should carry a foreign language at least one year before changing to other lines of study. The pupils are trying to find themselves, and an opportunity of trying themselves out in the various subjects is essential. The following guidance card is used in making elections and is self-explanatory:

KANSAS STATE NORMAL SCHOOL, EMPORIA.

Junior High School Pupil Guidance Card.

1. Name. Address. Telephone. Time of record. Adviser.
2. Date of birth. Place of birth. Nationality.
3. First entered Junior High School? From what school?
Finished Junior High School when?
4. Life work plans. Leisure time plans.
5. Tentative plans for Senior High School and College courses.
6. Social activities in the school. Social activities outside of school.
7. Work toward self-support? Where? Hours per week?
Money received? Working conditions?
8. Personal characteristics: Coöperation. Courtesy. Faithfulness.
Industry. Initiative. Judgment.
9. Sense of responsibility. Manners. Punctuality. Strength.
Weakness. School citizenship.
10. Qualities and evidence of leadership.
11. Is work unfavorably affected by state of health? Habits?
Social, athletic or other interests?
12. Scholarship: Special interest in. Ability in. Weakness in.
Dislike for.
13. Name of patents. Occupation. Address. Telephone.
14. Parents' plans for pupil.
15. Adviser's notes, comments and conclusions.

On the opposite side of the guidance card a record of subjects completed and subjects to be taken is kept.

CURRICULUM OF THE JUNIOR HIGH SCHOOL.

	ELECTIVES.	CONSTANTS.	ELECTIVES.
7B	Manual Training. Designing.	United States History. English. Arithmetic. Geography. Physical Training and Personal Hygiene. Home Economics (for girls).	French. Latin-English. Vocal Music. Instrumental Music.
7A	Manual Training. Designing.	United States History. English. Arithmetic. Elementary Science and Social Hygiene. Physical Training and Personal Hygiene. Home Economics (for girls).	French. Latin-English. Vocal Music. Instrumental Music.
8B	Manual Training. Designing. Orchestra Music.	Community Civics. English. Arithmetic. Elementary Science and Social Hygiene. Physical Training and Personal Hygiene. Home Economics (for girls).	French. Latin-English. Vocal Music. Instrumental Music.
8A	Manual Training. Designing. Orchestra Music.	State and National Civics. English. Mathematics. Elementary Science and Social Hygiene. Physical Training and Personal Hygiene. Home Economics (for girls).	French. Latin-English. Vocal Music. Instrumental Music.
9B	Agriculture I (Agronomy). Vocational Math. Manual Training I. Home Economics I. Orchestra Music.	General Science I. English I. Physical Training and Personal Hygiene.	French I. Latin I. Vocal Music I. Instrumental Music. Algebra I. Anc. and Med. Hist. I. Free-hand Drawing I.
9A	Agriculture II (Animal Husbandry). Manual Training II. Home Economics II. Orchestra Music.	General Science II. English II. Physical Training and Personal Hygiene.	French II. Latin II. Vocal Music II. Instrumental Music. Algebra II. Anc. and Med. Hist. II. Free-hand Drawing II.

The term "Social Hygiene" as used above does not include "Personal Hygiene," which is taught in connection with Physical Training.

SENIOR HIGH-SCHOOL CURRICULUM

(Tenth, Eleventh and Twelfth Grades)

Students graduating from the Senior High School must have earned twelve units in the tenth, eleventh and twelfth grades, with subjects distributed according to the following outline. Students entering the Senior High School must present four units (see Junior High School curriculum for 9B and 9A grades).

Constants.—All students are required to complete all subjects listed as “constants.” The direct values of these subjects are realized in the common knowledge and training which individuals of a democracy must have in order to live together as free and responsible citizens. The constants deal with the problems of citizenship, the means of communication through the vernacular and with the problems of health and physical development.

<i>History and Civics.</i>	<i>Units.</i>
Contemporary World History, S. 1-2 ²	1
American History from 1789, S. 3-4	1
Civics (Problems of American Democracy), S. 5-6	1

<i>English.</i>	<i>Units.</i>
Constructive English, S. 1-2	1
Literature, S. 3-4	1

Physical Training and Personal Hygiene.

Physical Training, including Personal Hygiene, taken throughout the three years, S. 1-6.

Elective Groups.—The elective groups are designed primarily to prepare for entering normal school, university or college training for teaching. As far as possible, each student should determine the special field in teaching for which he wishes to prepare in normal school, university or college, and then in consultation with his advisers elect the group of subjects which will fit him best for that work; or if he wishes to prepare for some other profession or vocation, he should choose the group which will give him the best training for his future work in it.

Each student, on entering the Senior High School, is required to elect one of the following groups of subjects from which he is to complete before graduation no fewer than *four* units, nor more than *five*. Work in the same department done in the ninth grade of the Junior High School will count as credit in his elective group. The student should complete at least *two* units of his elective group in the first two years of the Senior High School, and *two or three* units during the last year.

²S.—Senior High School. J.—Junior High School. The numbers indicate the numerical order of the semesters when the subject should be taken.

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<i>Commerce.</i>	<i>Units.</i>	<i>Mathematics.</i>	<i>Units.</i>
Bookkeeping, S. 1-2.....	1	Algebra, J. 5-6, S. 1.....	1½
Stenography, S. 2-3-4....	1	Geometry, S. 2-3-4.....	1½
Typewriting, S. 1-2-3....	1	Advanced Arithmetic, S. 5-6.....	½
Penmanship, S. 1.....	½	High-School Arithmetic, S. 2.....	½
Commercial Law, S. 6....	½	Trigonometry, S. 6.....	½
Commercial Arithmetic, S. 1	½		
Commercial Geography, S. 4	½		

<i>Agriculture.</i>	<i>Units.</i>	<i>Science.</i>	<i>Units.</i>
Agronomy, J. 5.....	½	Physics, S. 5-6.....	1
Animal Husbandry, J. 6...	½	Chemistry, S. 3-4.....	1
Horticulture, S. 1.....	½	Botany, S. 1-2.....	1
Poultry and Dairying, S. 2.	½	Physiology, S. 3.....	½
Farm Management, S. 3...	½	Algebra, J. 1-2.....	1
Botany, S. 1-2.....	1	Geometry, S. 1-2.....	1
Physics, S. 5-6.....	1		
Chemistry, S. 3-4.....	1		

<i>English.</i>	<i>Units.</i>	<i>Manual Training.</i>	<i>Units.</i>
English in the group of constants, S. 1-2-3-4.....	2	Mechanical Drawing, S. 1.	1
English VII, S. 5.....	½	Wood Working, S. 1-2....	1
English VIII, S. 6.....	½	Joinery, S. 3.....	½
Oral Expression I, S. 3...	½	Cabinetmaking, S. 4.....	½
Oral Expression II, S. 4..	½	Wood Turning, S. 5-6.....	1
		Industrial Arts (Drawing), S. 3.....	½

<i>Foreign Languages.</i>	<i>Units.</i>	<i>Home Economics.</i>	<i>Units.</i>
Latin, J. 5-6, S. 1-2-3-4-5-6.....	2 or 3	Serving.....	½
French, J. 5-6, S. 1-2-3-4.....	3 or 2	Home Problems.....	½
		Free-hand and Construction Drawing.....	1
		Chemistry.....	1
		Physics.....	1

Free Electives.—The student should elect at least from *one-half* to *one* unit of studies each year for no other reason than because he desires to find out whether he likes them, or because he desires to secure a certain breadth of outlook upon life which he thinks these subjects will give him. He should try to enjoy such subjects as much as possible, not because they are to prepare him directly for a vocation or a profession, but because he appreciates their thoughts, enjoys their beauty or his own activities in pursuing them. He should study them with a playful yet thoughtful attitude of mind.

If the student expects to enter a higher institution of learning, he should elect such other subjects as may be required for admission which are not included in the constants or in his elective group. The college admission requirements are: English, three units; history, one unit; algebra, one unit; geometry, one unit; science, one unit. These requirements are all accounted for in the list of constants in the Senior High School and of the ninth grade of the Junior High School, *except the two units in mathematics.*

Each student is required to elect three units from any of the above elective groups outside of his own elective group, or from the following list of additional free elective subjects:

ADDITIONAL FREE ELECTIVE SUBJECTS

	<i>Unit.</i>
Elementary Sight Singing, S. 2	$\frac{1}{2}$
Intermediate Sight Singing, S. 2	$\frac{1}{2}$
Free-hand Drawing, J. 5-6.....	1
Girls' Chorus, S. (any time)	$\frac{1}{2}$
Men's Chorus, S. (any time)	$\frac{1}{2}$
Instrumental Music, S. (any time; private)	1 to 3
Music Appreciation for Beginners	$\frac{1}{2}$
Political Geography, S. 4	$\frac{1}{2}$
Physiography, S. 6	$\frac{1}{2}$
Psychology, S. 6	$\frac{1}{2}$
School Administration, S. 6	$\frac{1}{2}$
Ancient and Medieval History, J. 5-6	1
Rural-school Music	$\frac{1}{2}$

Guidance Work.—The guidance work of the Senior High School is directed by the principal and one assistant. The principal teaches prescribed subjects only, and is, therefore, not likely to be a partisan advocate for any particular departments. A guidance card similar to that of the Junior High School is used.

SUGGESTIONS TO TEACHERS AND STUDENTS

1. What other theories than those proposed in this chapter are advanced for junior and senior high-school curriculum building? Are these theories based wholly, in part, or not at all upon the disciplinary conception of education? In general, are high-school curriculums constructed at present on the basis of accepted educational theories, or on that of traditional practice, of college requirements, and of the recommendations and requirements of state boards of education? To what extent do colleges and state boards of education change high-school requirements in view of social needs? How do you account for the fact that the requirements laid down by universities frequently do not correspond very closely to the definitely settled theories of curriculum-making advanced by the instructors in the educational departments of these institutions, nor with the views of progressive high-school teachers, principals, and superintendents? What means do you recommend for constructing high-school curriculums in conformity with the most progressive thought upon the subject?

2. What improvements in the theory of the "social core of the high-school curriculum" proposed in this chapter can you suggest? What objections are there to discontinuing geography as such at the end of the sixth grade? If geography is required in the seventh grade, should elementary science, also, be required in the seventh grade, or should it be postponed to be taken up in the eighth grade? Should mathematics be required in the ninth grade of the junior

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high school? If so, what kind of mathematics should be required in this grade? In addition to the required subjects recommended for the junior high school in this chapter, how many electives should each pupil be required to carry? What should be the maximum and minimum number of electives to be taken at one time in the seventh and eighth grades by boys. By girls? Answer the same questions for the ninth grade. What should be the relative amounts of time per week given to a required subject as compared with an elective subject in the seventh and eighth grades? How would you answer this question for the ninth grade in view of the college and state requirements? Would you prescribe household arts for all girls in the seventh and eighth grades? If so, should certain parts of this course, also, be required for boys, such, for example, as the hygiene of diet and clothing and the making of home budgets? If one of the main purposes of the elective subjects of the junior high school is to aid the pupils in discovering their vocational bent, their avocational and cultural interests, how long should a pupil be required to pursue an elective subject before dropping it to take up another? Would the pursuit of a foreign language be an exception to your answer?

3. It is suggested that each student during the three years of the senior high school should complete five units of constants, at least four units in an elective group, and at least three units of free elective subjects. What changes, if any, would you suggest in this division of the work? Should physical training be required, as it ordinarily is, without credit? If credit is to be given for physical training, should more than a total of twelve units be required for graduation from the senior high school? How can the curriculum proposed in this chapter be administered to meet the requirements of the Smith-Hughes Law? How can it be administered to meet college requirements for entrance? Should the universities and colleges continue to make and enforce their requirements for the ninth grade of the junior high school, or should their requirements for the junior high school be withdrawn entirely?

CHAPTER III

INSTRUCTION IN THE PRESCRIBED SUBJECTS OF THE JUNIOR HIGH SCHOOL ¹

Transition Problems.—The “gap” between the high school and the elementary school, over which there has been so much discussion during the last twenty years, is being closed by the organization of the Junior High School, or Intermediate School, as it is sometimes called. Merely the regrouping of the seventh and eighth grades, or, as is more usual, the seventh, eighth and ninth grades, will not materially improve the instruction of those grades. In all grades of the elementary school, we have passed in succession from the period of the “three R’s” and meager content into a period of enrichment, and from this period into one of elimination of subject-matter. The immediate problem in the junior high school is how to eliminate certain subject-matter and how to enrich the course of study at the same time. In the effort to hold everything in the curriculum and to gather more, correlation and concentration were resorted to as remedies for the congestion of the enriched program. These movements cannot be said to have been successful except in the primary grades where the subject-matter of the curriculum is not sharply differentiated into distinct branches. Very early in the grades, however, history refuses to be swallowed up by geography or all subjects by nature-study. The various branches of the school are the fundamental modes of thought or activity, and, while they must always be kept elastic, to destroy their identity would be to destroy the tools of the child’s education. It is the tool part of any subject which needs to be pre-

¹ See Bibliography, page 274.

served, and not the illustrative materials which have been used in the processes of acquiring the tools or even the materials to which the tools have been applied.

The overcrowding of the work of the upper grades of the present elementary school is not due so much to the number of branches taught as it is to the prescribed packing of many things into each branch. This packing follows the vague and very uncertain criterion of what a child ought to know in general.

Much should be eliminated from the traditional subject-matter of the seventh and eighth grades in order that the pupils of the junior high school may use their studies as instruments of social interpretation. When we consider the work of the junior high school as primarily the organization of socializing activities adapted to the needs and interests of the pupils, the problem of elimination well-nigh vanishes, for the only specific prescriptions within each branch should be the necessary technic with which to organize and interpret the socialized content of instruction. The problem of enrichment will be solved by seeking subject-matter and activities which are, or may be, socially significant to the pupils.

Literature.—The principal aims of reading in the junior high school grades are the appreciation of works of standard authors, “the inculcation of moral principles through the study of literary characters,” and the ability to read silently.²

The tests of success in reading the works of standard authors are the development of taste and the voluntary reading of standard literature after high-school days are over. Measured by these tests, the study of standard authors has been a failure for the great majority of high-

² Douglass, “The Junior High School.” The fifteenth year-book of the National Society for the Study of Education, Part III, *page 62*.

school pupils. Teachers of literature have not altogether been to blame for this condition. The pressure of college English requirements upon the high school, together with the traditional school readers, have compelled the teacher to take the direct route to the works of standard authors. Meanwhile the juvenile librarian has captured the youth's literary interest. It is true, as the records of any well-conducted public library will show, that the youth of to-day is an inveterate reader, but he reads the popular fiction, nature and animal stories, etc., while the standard authors are eschewed on principle. To illustrate, a friend of the writer, a teacher, undertook to interest his boy in a certain standard author's novel, which was well-adapted to the boy's interest and capacity for reading. After the merits of the book had been exploited, the boy replied, "Aw, dad, you're trying to put some school stuff on me." The father persisted no longer in his advice, but paid a visit to the librarian. The librarian now tells the boy that "many boys around town are reading this book." It goes without saying that he is now enjoying the reading of some standard authors.

The teacher of literature should regain the confidence of the youth by approaching the reading of standard authors by the indirect route. She should utilize his library reading without dampening his interest in it, and, with the coöperation of the librarian she should elevate his taste for the cruder literature up to the point where he will voluntarily read some of the standard works. As is usually the case, the boys and girls read what they have to read in school with little interest, while at the same time they are reading, outside of school, library books, often two or three a week, with the keenest interest. Yet little progress is made by the library in helping the boys and girls to read better books from year to year.

This lack of progress in the choice of better books

is indicative, also, of the lack of development in the moral appreciation of the literary characters of the better books. In the attempt to secure the moral effect the pupils should not be required to read the "goody-goody" kind of books, nor should the teacher sermonize the pupils overmuch, nor require them to descant in discussion or written composition upon the moral qualities of literary characters. On the other hand, passages pregnant with moral lessons should not be spoiled by the finesse of linguistic analysis.

The teacher of literature will do well to establish reading relationships with the home wherever possible. One excellent device is to encourage the pupil to keep a diary of his home reading. Parents frequently manifest a great interest in the home-reading diaries of the pupils and give helpful supervision of this work. Pupils may be asked to give reports to the class from their reading diaries. They are invaluable as a means of aiding the pupil to assimilate and remember what he has read, and in helping him to compare one book with another. These diaries, also, furnish excellent exercises in composition. The problem of the development of appreciation for the works of standard authors will require the closest coöperation of the school, the library and the home.

Progress in developing a taste for good literature cannot be forced and can only be attained by utilizing the pupil's reading interest. Furthermore, the teacher of literature should frequently revise her notions as to what constitutes standard literature for boys and girls of the junior high school age.

Silent Reading.—The method in the primary grades of emphasizing oral reading has been practiced in the upper grades of the elementary school for many years. In the primary stage of word-recognition the practice of reading almost everything orally which is read silently is no doubt good pedagogy, but the employment of such

a method after the child has begun to use his technic of reading for thought-getting is detrimental for many reasons. It is detrimental because the pupil's need for reading in and out of school is nearly always the need for silent reading. It is detrimental because the over-emphasis of oral reading builds up habits of inner articulation, lip, tongue, vocal chord and throat movements, and habits of eye movements which are carried over and tend to check progress in silent reading. The inner articulation movements and eye movements caused by premature oral reading retard the more rapid processes of silent reading. With the best readers, no doubt, there are vague feelings and movements of inner articulation, but they are slurred over and do not retard silent reading.

One may be a good silent reader but a poor oral reader. To be a good oral reader, on the other hand, one must be a good silent reader. The eye movements required in grasping phrases and the ability to look ahead and comprehend large units of thought, developed in good silent reading, are essential to good oral reading. It is probable, however, that inner articulation habits developed by good oral reading which involve feelings of inflection, pitch, tone quality, and rhythm have some value for silent reading, especially the silent reading of poetry.

The practice of requiring upper-grade classes to read orally entire selections such as "Evangeline," "Snow-bound," "Lady of the Lake," "Ivanhoe," etc., effectually, dampens the pupil's ardor for school reading. If he has been interested in the selection chosen he will have finished reading it silently before the class reading is fairly well started, and before the class has finished its oral reading he has lost interest and is heartily tired of the whole procedure. The reading speed of the class ought to keep up with the average silent reading speed of the

members of the class. In general, only the highly dramatic and summing-up portions of literary selections need be read orally. Oral reading is not necessary as a test of the quality of silent reading. There are several familiar and effective silent reading tests now in use in the best schools.

Oral Reading.—The pupil should not be required to read orally, even under the limited use of oral reading advocated above, until he can readily recognize the words and the thought of the selection without conscious effort. Otherwise his oral reading is slow and halting. He stumbles along to recognize the words and his reading results in the mere pronunciation of words. Word recognition and thought-getting are preliminary processes to oral reading, the purpose of which is to communicate ideas rather than to recognize words or to master the thought. The teacher asks the pupil to read as he talks, but this is impossible because he talks as he thinks.

Mechanical reading results, because a mechanical situation is forced upon the pupil. In addition to the difficulty of being unprepared for oral reading all the other members of the class are frequently put on guard to watch the pupil reading and to call attention to such matters as standing position, holding the book, looking off the book, pronunciation, pauses, letting the voice fall, etc. If the pupil's inflections and emphasis vary from the conventional reading of the class, the teacher or some bright pupil gives a model demonstration, and then the unlucky pupil is asked to try again by imitating the model. Such a procedure compels the child to rivet his attention upon the mechanical phases of his reading rather than to keep his mind upon the effective communication of the theme.³

The abuse of oral reading justifies a more extended

³ For the psychology of oral and silent reading, consult Freeman, "Psychology of the Common Branches," pp. 67-97.

discussion of its use and place. Evidently the value to be derived from reading some types of selections is much less, unless they are read orally. This is true of the drama and of well-dramatized selections, such as are being provided now in dramatic readers. It is also true of such poems as Tennyson's "Bugle Song," "Ring Out Wild Bells," and "The Charge of the Light Brigade." Probably all lyric poems should be read orally for the rhythmical effects produced. With the exception of such material, oral reading should occur in the study of literature and reading selections only when it serves an end other than just good expression. For example, in the class discussions of reading selections the effectiveness of the pupils' work will be greatly increased by reading orally for such purposes as the following: (1) To show the reason for the point of view he holds. In the study of Hawthorne's "The Great Stone Face," for example, when the different characters in the selection are under discussion, each pupil should read those passages or expressions which cause him to hold the point of view that he advances regarding the traits of each character. (2) To bring out the feeling or the action which the pupil thinks is intended. In the study of such a selection as Irving's "The Legend of Sleepy Hollow" there is need to read orally extracts describing the midnight ride of Ichabod Crane in order that the feeling and action which the pupil senses may be indicated through his oral reading. (3) To enable the pupil to indicate those passages or parts which are most beautiful or interesting to him. It is preferable before leaving a selection, in which the children have shown great interest, to give opportunity for indicating such parts through oral reading.

In conclusion, silent reading should be emphasized: (1) because of its superior value to oral reading; (2) because oral reading habits, formed prematurely or in the

absence of good silent reading, tend to prevent efficiency in the latter; and (3) because good silent reading is the basis of good oral reading. Finally, (4) oral reading following a good preparation in silent reading should be required in the rendition of the drama, poems of action, lyric poems, the oration, and during the class discussion and interpretation of any other kinds of literature.

Composition.—Composition is the organizing form of all language instruction in the vernacular. Conditions for good work in composition are: (1) that the pupil has ideas which appeal to him as being worthy of communication and for which there is some object in communicating; (2) that he have an appreciative audience or person to receive his communication; (3) that while he is speaking or writing he shall have conditions conducive to the fullest and freest expression of which he is capable until he has finished, and (4) that the attitude of the class group for whom the composition is produced or delivered is sufficiently serious and dignified to exact a careful choice of words, sentence structure, etc.

Written Composition.—In the first place, too much emphasis cannot be placed upon the importance of real motives for composition. The days of the posted list of composition topics, from which pupils were allowed to choose, are passing. Any father, who is interested in his children's activities, knows how abundant are their motives for composition, and he is frequently beset with the request, "Listen, dad," and if he listens, what waves of oral composition roll in upon him. One of these "listen, dad," stories was written up by a tenth-grade high-school girl for her English teacher on her return from a trip abroad. It was entitled "Some Alpine Incidents." Its reception by the teacher illustrates how the school often fails to utilize the composition motives of its pupils. This girl had written under a spell

of interest approaching emotional and intellectual ecstasy, as was shown by certain evidences of originality and freshness of expression. She had thrown herself completely and unreservedly into her theme. Imagine the effect upon her when the composition was returned by the teacher, negatively and mercilessly blue-penciled through all of its "fresh" spots, while the portions put together by use of the dictionary and the encyclopædia were left unassaulted. This illustration may be extreme; nevertheless, it is typical of a large number of instances which have come to the notice of the writer.

Voluntary compositions from pupils should always be welcomed and given audience, and every encouragement ought to be given the pupils to write. Boys and girls of junior high-school age have a strong social impulse to write letters to distant friends and relatives and to classes of pupils in other localities. These are golden opportunities for the composition teacher.

In a certain junior high school many opportunities for writing notes, letters, invitations and requests are provided. The pupils know that the letters they write will be sent and read and that the requests they make will be answered satisfactorily according to the importance of the thing requested and the degree of clearness of their writing. During the past year the eighth-grade pupils acted collectively as "Clearing-house Agents" for the whole school. Teachers and pupils of the school from time to time presented certain needs to the pupils of this grade and they in turn wrote requests to the officials having charge of the matters requested. The seventh grade took the responsibility of advertising the "Parent-Teachers' Association." This required the arrangement of the program, and the writing of the best possible advertising paragraph as the introduction to each program. Another grade edited and published the bi-weekly school

newspaper. The class decided that the aim of the paper should be "to record school events and increase school interest." The editors of the paper were changed with each issue, giving each pupil training in the corrective as well as in the constructive phases of the work. Editorials were written upon the general needs of the school, including such questions as "school spirit," discipline and school honor. A lower grade arithmetic class engaged in "play bank work," also, in "play wholesale and play retail mercantile work," were allowed to advertise in the school paper. A great deal of the oral composition work was done in connection with the "School-planning Period," which will be described under "School and Home Citizenship." As a further means in stimulating good composition work a set of "pigeon holes," prepared by the boys in manual training, was placed in a room accessible to all pupils. Each pupil was permitted to file his compositions known as "finished products" in his "pigeon hole" where other pupils were allowed to read them. The teachers referred pupils to the compositions of their classmates as well as to those of other classes. Pupils voluntarily read each other's compositions and various uses were made of this socializing device.⁴

Pupils should not be required or allowed to write compositions until they are ready. Whatever may be the value of the daily theme in a college freshman composition class, such a requirement cannot be recommended for either the junior or senior high school. Pupils should write when they are thoroughly ready and when the desire to write is impelling. The preparation should consist: (1) in a clear notion regarding the nature of the problem to be solved, the main point of the story to be told, or the objects to be described, etc.; (2) in the construction

⁴J. H. Wilson, in *Course of Study Outlines*, Kansas State Normal School, Emporia, 1917-18, page 20.

of a tentative outline; (3) in reading, observing or gathering by one means or another more information bearing upon the theme, and (4) in a rethinking of the theme and in a reorganization of the tentative outline.

When the pupil is all ready to write, let him work without interruption until he has finished. As far as possible, he should forget the presence of the teacher. His mind should be intent upon his theme rather than upon the form and the technic of his writing. His outline should be regarded only as tentative and as he writes he should expect a flood of new suggestions. Whatever he knows about technical matters of form should occupy the margin of his consciousness rather than the focus. He must write rapidly to keep up with the flow of his suggestions. Necessarily his spelling, punctuation, sentence structure, sentence sequences, unity and coherence, in the first drafts of his compositions will be very defective until he has largely reduced these matters to automatic control. But he should follow and record his ideas as rapidly as they come, if possible. When he has given full and free expression, his attention should be turned to the reorganization of the entire composition.

If the pupil has actually thrown himself zestfully into his writing he will have a lively motive for putting it in a "clean dress." So it happens that the best condition for learning the mechanics of language is the delivery of his own worth-while ideas, however crudely expressed. In the first place, he may reorganize his composition by outlining it as it is in the first draft, letting a sentence stand for each paragraph. This will enable him to rearrange the order of the paragraphs, interchanging some, eliminating some, and adding others. Then he should outline each paragraph as the first step in its reorganization. The order of sentences will often need to be changed, placing a strong and inclusive sentence at the

beginning of the paragraph, looking after transition sentences in relating paragraphs, eliminating sentences, adding others, etc. Finally, he may give his attention to the structure and diction of sentences.

Throughout the reorganization of the composition he should use his previous knowledge of spelling, formal language, grammar and rhetoric, but the adequacy of all technic must be weighed in terms of the requirements of the thought of the composition. At this stage of the work he is ready to rewrite his composition as a last step before its presentation to the teacher or the class.

When a composition has thought-merit the teacher may criticize its form with good effect upon the pupil. By giving credit for original ideas and good thinking she can suggest better technic. When a pupil has become thoroughly aroused in his writing he has a feeling of personal identification with his themes which the teacher should appreciate.

Oral Composition.—Oral composition in the junior high-school grades is usually regarded as incidental to the work of other subjects and as having no particular place of its own in the daily program. The same position could just as well be assumed regarding written composition. Theoretically, such a position might be held, but the limitations of present practice require a separate period for written composition. Without a regular place on the program it is not well done. Things incidentally performed are rarely well done.

Undoubtedly a part of the time ordinarily devoted to written composition could be used for oral composition without diminishing the effectiveness of the former. Although oral composition is not a necessary foundation for written composition it may be made an important aid. In establishing a separate period for oral composition there is danger, however, that the pupils will

not possess ideas sufficiently gripping to make much progress in expressing themselves effectively in connected discourse.

The pupils of a class should never come together with the feeling that it is "now time to do some oral composition work." Such an attitude is equally unproductive in oral as in written composition. Indeed, it seems almost unfortunate that there is such a meaningless word as "composition" used to designate a subject of the curriculum. The meaning of the word composition, as ordinarily carried out in practice, is little more than a never-ending series of periods concerned with linguistic drudgery, unless it is closely associated with some definite question, plan, object or situation to speak or write about. Mere talking is as useless as mere writing. The pupil's general motive in oral composition is to effect favorably the thinking, feelings, or actions of the other members of the class. This requires originality of thought and an effective delivery. Effectiveness in delivery is made possible by the fact that the pupils come together in a socially-organized group to consider and discuss matters, important to them, in a dignified way. On the other hand, while the pupils feel the restraint of this relatively dignified occasion they, also, feel free to express their thoughts freely and completely. Such an organization of the pupils furnishes the essential condition for training them to speak in correct, elegant, and thoughtfully connected discourse. In this way higher standards of speech may be set up and attained.

Some crude language forms are created and disseminated on the playground, while others are acquired by imitation from their parents and the man on the street. The most persistent of the incorrect language forms and structures acquired by children are undoubtedly those learned in play. Word forms are coined for the first time,

imitated and repeated again and again, accompanied by great interest. Language acquired in this way persists in spite of the ordinary methods of the language teacher. The only way successfully to combat the influence of the playground "gibberish" is by establishing a more effective organization of the social group of pupils for language production and imitation.

The class in language should combine the interest and freedom of play with the dignity, restraint and responsibility of the more serious activities of the school. The teachers in all of the other branches should maintain the standards of language set up in the composition classes. When correct language standards are acquired in this way, it is a matter of little consequence if the children continue to use one kind of language on the street and on the playground and another kind in school, for sooner or later one style of slang gives place to another, until finally the pupils' pride operates to establish the more dignified and the more universal language conventions taught in the school. The danger consists in the failure to train the pupils to use good, oral language even in the schoolroom. When this is the case language habits acquired outside of school, unless the home is able to break them, will persist.

The social requirements of the school are bringing composition out of its former exclusively literary connections, and good oral and written composition work is seen to be a part of the responsibility of other teachers as well as that of the English teacher. Work in geography, history, science, etc., is not well done unless it is adequately expressed in good oral or written composition.

In recognition of the importance (1) of securing the coöperation of all teachers of the school in teaching oral and written composition, and (2) of using the experiences of the pupils in their various school subjects and

activities as the content for much of the composition work, a plan is under way in a certain junior high school to establish composition coöperative periods. Briefly, the plan is to set aside certain periods when the English teacher and any other teacher may meet the pupils of a given class, as, for example, a history class, for the exposition of the work by the pupils of that class. Thus a part of the composition work will be done in connection with the various studies and activities of the school. The composition period, as such, however, will be maintained as before. When the English teacher and a teacher of another branch meet with the pupils, the former will be primarily responsible for judging the forms of the compositions, while the latter will be primarily responsible for judging the adequacy of the facts and the thought. By means of the coöperative period in composition the English teacher will become a better judge of the content and the thought of the composition and the other teachers will develop a language consciousness which will enable them to assume their just share of the English work of the pupils.⁵

The coöperative composition period will be a period for the expression phase of history, science, arithmetic, etc. This plan promises to increase the efficiency of the pupils' work in all lines. It provides a rich content and a variety of projects for both oral and written composition.⁶

Grammar.—Grammar in the junior high school should be an outgrowth of the formal language work done in connection with the composition work. Grammar for these grades should be systematized common-language usages and not a development of the science of philology. The object of grammar study here should be to assist the pupil in developing a language consciousness, in order

⁵ See Bolenius' "Teaching of Oral English."

⁶ See "Project-Problem Instruction," chapter 4, p. 91.

that he may become an efficient critic of his own language habits.

The pupils should be encouraged to compile their own grammars. The sources of study will be their compositions, oral and written, and the discourse of good speakers and writers. After sufficient examples illustrating a certain structure have been given, the pupils should be asked to find the similarity of the forms and functions and to derive rules for correct usage. If the rule is satisfactory, new material should be presented by the pupils and the teacher, and the rules should be applied to them to determine whether their conclusions have been accurate.

The work should begin with the sentence, and after developing the different kinds and parts of sentences, study should be given to words and parts of speech. It should be impressed upon the pupil that the part of speech of any word does not come from the word or the rule which he may have learned relative to that particular part of speech, but from the use of the word in the particular sentence under discussion.

As rapidly as pupils formulate the rules of their practical grammar they should be required to use them in correcting their compositions. In this way they may become conscious of their own incorrect usages and, also, employ new forms which they have hitherto failed to acquire through imitation. In the main, however, grammar for the junior high school should be regarded as supplementary to the positive processes of imitation in acquiring correct usage.

Spelling.—In teaching spelling we have recognized the importance of developing (1) accurate sense imagery (especially visual imagery) and motor habituation in writing the words, which finally result in automatic spelling; (2) a spelling consciousness, which leads the pupil to detect his own errors in spelling; and (3) a desire for good

spelling, which in turn results in the careful use of the rules of spelling, other known forms of the words to be spelled, and the dictionary. Methods have been devised to secure automatic spelling, but little has been done to develop conscious spelling and a desire for good spelling. Of course, one is not a good speller until his spelling is reduced to habits requiring little, if any, conscious direction. But conscious direction, coupled with a desire for good spelling, is needed in initiating and making secure correct spelling habits.

By spelling consciousness I mean that consciousness which helps one to detect and correct one's misspelled words and not to misspell the same words again. In practical life, use is the test of good spelling. That person is a good speller who can spell the ordinary words which he needs to use in his letter and composition writing, doubts the words he can not spell and ascertains the correct spelling before writing. That person is on the way toward good spelling who develops a spelling consciousness, *i.e.*, who doubts the spelling of the words he ought to doubt and who checks up his spelling by such means as other known forms of the words doubted, the rules of spelling, and the dictionary, without referring to these sources repeatedly for the spelling of the same words.

That pupils ought to be able to spell automatically all common words used by them in their composition and letters is generally accepted; but what other words, if any, they should be able to spell automatically is not well established. There is, without doubt, a distinguishable difference between the number of words used by the child in his composition writing and the number he would use if he were made familiar with the spelling of more words. If the pupil were required to master the spelling of common words used in speaking and reading, is it not reason-

able to suppose that the increase in his written vocabulary would be accelerated? But, first of all, the pupil should master the spelling of those words which he uses frequently in his compositions, and these may be supplemented by words chosen from his oral and reading vocabularies. All technical words which he needs to write in connection with his history, geography, science, arithmetic, etc., should be learned in connection with the lessons in those branches. Moreover, all teachers in all branches requiring composition should be constantly on the alert to secure good spelling in the common words used. Accurate individual lists should be compiled from the misspelled word as they occur in the pupil's written lessons in history, geography, etc., and these lists should not be abandoned until they are reasonably well mastered. This work should all be done in the time allotted to the teaching of the several branches.⁷

However, experience seems to show that words selected for spelling exclusively on this plan, although better than the traditional compilation of the old spelling-book, need supplementing by more inclusive word lists and by regular exercises in spelling. For the work of the regular spelling periods it would be a good plan to have the pupils spell in sentences the words found in such lists as the Ayres' spelling scale and in the graded lists contained in Horn's "A Compilation of the Commonest Words from Eight Investigations of Spelling Vocabulary." Such lists are very important, because they have been made up from extended investigations of the words people use in writing and the degree of difficulty of each word has been carefully determined.

Words should usually be spelled in sentences, because that is the way that children as well as grown-ups usually use spelling. Moreover, when the pupil learns to com-

⁷Suzzallo, "Teaching of Spelling," Boston, 1913, pp. 15-29.

pose well, his attention must not be centered upon the spelling of words. He must keep up with his thought, even at the risk of misspelling words. The spelling test of the composition is a test of the pupil's spelling habits. It follows then that his spelling should have approximately the same speed as his writing. The average writing speed of a class should be determined and used in a plan similar to that of the "Curtis Standard," "Folder B, Series S." Better still, the average speed of the upper and lower halves of grades as determined by Frank N. Freeman could be used and modified to suit the needs of the particular class. Freeman's standard writing speeds are shown in the following table:

AVERAGE SPEED OF UPPER AND LOWER HALVES OF GRADES IN ALL THE SCHOOLS INVESTIGATED.*

(The figures in the table represent the average number of letters written per minute.)

	School Grade						
	II	III	IV	V	VI	VII	VIII
Average of upper half.....	35.4	47.7	56.2	64.9	69.2	73.4	77.8
Average of all.....	30.6	43.8	51.2	59.1	62.8	67.9	73.0
Average of lower half.....	24.4	37.4	43.4	49.9	52.8	58.5	61.2

* Frank N. Freeman, "Handwriting," in Fourteenth Yearbook of the National Society for the Study of Education, Part I, p. 63.

So far our discussion follows the best practice of the present time. Our plan is different only in proposing in addition to present practice a scheme for developing a more accurate spelling consciousness.

When the spelling sentences have been written, each pupil should be required (1) to mark each word, the spelling of which he doubts. (2) As far as possible he should test the validity of his doubts by known means outside of the dictionary, finally checking up all doubted

words by using the dictionary. (3) He should write all of the misspelled words, which he has thus detected, correctly spelled in separate lists. (4) At this point the pupils' papers should be exchanged, the teacher spelling all words and the pupils marking those found to be misspelled on the papers. (5) Finally, when the papers are returned to their owners, the additional misspelled words discovered should be added to their individual lists.

The pupil's sentence spelling should be scored by the teacher on the basis of the correctness of his doubts as well as upon the number of words spelled correctly. Until a scientific determination can be made, the *spelling of words correctly* and *doubting correctly* should be each scored on the basis of 100 per cent. The pupils should be scored down (1) for doubting words spelled correctly and (2) for not doubting words spelled incorrectly.

The question arises at this point regarding the conflicting images of words the pupils have misspelled or have doubted. That is, whenever the pupil doubts a word he has at least one incorrect image of that word and possibly a correct image of it, and when the spelling of this word is required again these images will recur in the mind, making the pupil uncertain of the correct spelling. This condition will exist even after the pupil's doubts have been verified and the correct spelling of the word is ascertained. How will he be able to decide which is the correct image? After the doubting and verifying processes have been completed in the spelling lesson, then all words misspelled or doubted should be systematically taught. That is, certain definite associations with the correct spelling of the words should be thoroughly established, while their incorrect spelling should not be mentioned. In other words, the images of the correct spelling should be developed into memories, while the images of the incorrect spelling should remain as mere images, which

will soon die away. When an image conflicts with a memory the latter survives and establishes grounds for belief and action.

Portions, at least, of the several individual lists formed in connection with the sentence spelling above described should go back into the general class lists to be spelled over again. How many, or whether all, of the words of these individual lists should be spelled again and again by the whole class is difficult to determine in the absence of the concrete situation. To say that only those words missed in common by the pupils should make up the class lists would be to undervalue the effectiveness of repetition in forming spelling habits. On the other hand, to keep all the members of the class spelling certain words until no one misspelled them would be wasting time for the good spellers. It seems important, therefore, that emphasis should be placed upon individual spelling in connection with class spelling and that a reasonable amount of repetition should be provided in spelling words correctly. The individual lists should be used by the pupils at all times when checking up the words of their compositions, and the teacher should be on the alert to make this work effective.

Every opportunity should be seized to develop the pupil's desire for good spelling. The teacher's insistence upon a reasonably high standard of spelling efficiency should develop the pupil's desire for good spelling. Any method which causes the pupil to be attentive to the correctness of his spelling and which stimulates a pride in spelling correctly is helpful. The school paper in which the pupil's compositions appear, his compositions that are read by his classmates, or his letters to friends who are known to have pride in good spelling, all give good opportunities for developing a spelling consciousness and a desire for good spelling. It is asserted, also, by a number

of teachers that the use of a typewriter in writing compositions leads to carefulness in spelling.

Careful use of this plan for developing a spelling consciousness, checked up by frequent standard spelling tests, should determine the value of a spelling consciousness and whether or not a spelling consciousness can be developed.

A record of each pupil's spelling should be kept on a blank like the following:

MARY JONES, 7B—SPELLING EXERCISES.

Date	Words Missed	Correct Spelling	Checking correct words	Not checking incorrect words

The purpose of the foregoing method is to eliminate formal class work in spelling as rapidly as possible. To this end a so-called "spelling hospital" should be established in the junior high school. At the beginning of each year the Ayres' test, or some other standard test, should be given to determine the range of the pupils' abilities in spelling. Each pupil should be excused from formal class spelling as soon as he reaches the required standard set by the test. He should be returned to the class, however, whenever it is found that he is unable to detect or is careless in detecting the misspelled words in his compositions, letters, and notes. After the requirements of the standard tests are met the pupils should, or should not, be doing

class work in spelling according to their ability to detect and correct with facility the misspelled words in their written work.

United States History.—The emphasis upon citizenship and moral values of history should lead to the development of studies seldom attempted. The state is not the only historical institution which should be carefully studied in the junior high school.

Good citizenship requires a better understanding of the home. Some attention is given to the home in connection with the study of the Puritans of New England of the seventeenth century, but a careful study of the development of the home during the last one hundred years should be included in the study of United States history. Such a study is seen to be very important in view of the fact that there are so many social forces which tend to disintegrate the home. Have we no recent prototypes of Cornelia and her sons? The answer is, we have, and the school should find them and introduce their virtues and achievements into the history course. When society ceases to develop the home and to regard the home life as sacred, all other essential institutions will crumble.

After colonial times when church and state parted company, the church drops out of the history taught in our schools. Is it not time to lay aside some of our sectarian jealousies and teach the growth of the church in terms of its unity and social services? The history of the church during the last century is one of glorious achievements when compared with that of any previous period of the world's history. Why spend so much time studying the church in mediæval and modern history down to the close of the seventeenth century and then drop it out entirely? We are certainly a contemptible set of bigots if we can find no place in our schools for

the study of the services of the church—one of the five great institutions—during the nineteenth century and down to the present time.

It is a curious fact, also, that we have omitted a study of the school and the means of education in our United States history courses. By implication we teach the pupils that everything worth while is outside of the school by failing to have them study the school as one of the great institutions essential to democracy. Perhaps a better understanding of the ideals, aims, and organization of the school would beget in the next generation a greater respect for, and a heartier support of, education.

A knowledge of the general development of industry in the United States, especially since 1870, is essential to an understanding of the present problems of capital and labor and social unrest. The study of military campaigns and constitutional questions have little place in the junior high school. The greatest needs for citizenship to-day exist among those who are engaged in one capacity or another in industry. The school should do all in its power to develop more rational views in the rising generation regarding the rights, responsibilities and duties of those engaged in industry and commerce.

Again, the biographical phase of American history is sadly neglected in our schools. A special and rather intensive study of the life of Abraham Lincoln should be made, and now, also, of that of Theodore Roosevelt. The lives of such men are potent with citizenship and moral forces which should be effectively released in our schools. Examples, also, of the nobility of the services of the common citizen should be emphasized. Such examples will be more difficult to find because they are seldom written. Nevertheless, they should be found, for there is a certain discouragement to the average pupil in studying the lives of great men, because so few can ever

hope to rise so high. We should try to develop a greater regard for the essential goodness in the common people, for upon this fact rests the ethics and the greatness of our nation.

Finally, the past and the present of American history should be linked more closely together. Our insistence for requiring United States history in the junior and senior high schools is based upon the need for civic intelligence. The pressing problems of the present which have had historical beginnings and developments should be emphasized. As usual, the pupils should read history in its chronological and causal sequences, but the time for emphasis is when any important present civic or social problem first appears in the history of the United States. Then repeatedly as these problems become important in the history course, they should receive additional consideration.

Suppose that the immigration problem is chosen for emphasis. The people of the United States first became conscious of immigration as an important national problem during the first quarter of the nineteenth century. The United States government made its first report on immigration in 1820. How do those immigrants compare with the present immigrants? What was the attitude of the government then toward immigration and what is it now as shown by its laws on immigration? Motives for immigration, then and now? What did they do then on their arrival and what do the immigrants do now? The tendency to assimilate with Americans, then and now? Where did the majority of immigrants come from then and where do they come from now? Attitudes of industry and labor toward immigrants, then and now? Standards of living of the immigrants, then and now? Number of paupers among immigrants, then and now? Family life of the immigrants, then and now? Citizen-

ship problems of the immigrants, then and now? The pupils engaged in doing this work could emphasize the local immigration problems. On the Pacific coast, for example, the immigration of the Japanese, Chinese and Hindoos could be profitably studied. Such questions as the admission of these people to citizenship; their relation to labor organization, industry, and agriculture; the alien ownership of land and the laws bearing upon this question; the San Francisco oriental school question; and many other problems would develop.

In like manner the past and the present significance of other important civic problems could be linked together, the past giving perspective to the present and the present vitalizing the past. Problems in connection with such important topics as the following will readily occur: The manufacture of important consumption goods in clothing and foodstuffs, market methods and conditions, invention of labor-saving machines and devices, the organization and the work of corporations, the organization and the work of labor unions, the methods of agriculture, the grange and other farmers' organizations, the conservation of natural resources, the schools and other educational organizations, churches and other religious organizations, etc.

The question arises whether materials for working such problems could be made available. This, of course, will be the real difficulty, but no educational progress is made except in efforts put forth to relieve insistent needs. Are there any educational needs more important than our citizenship needs? To-day there are thousands of books, pamphlets, magazines, and reports covered with dust in our public school, state, and national libraries which may be requisitioned by the teacher. Moreover, a demand for up-to-date materials would lead to an increased production and distribution of reading matter. One of the

important duties of the teacher in this kind of work is to anticipate the problems likely to arise in the class and to provide the necessary materials.

Community Civics.—Important as is civics instruction through history, there is still need for a separate study of community civics. There are three essential phases of community civics instruction: (1) the pupils' home and school citizenship activities; (2) the citizenship of industry and labor of the community in which the pupils are living; and (3) civic activities of the community outside of school, home, industry and labor.

1. *School and Home Citizenship.*—There is little in teaching pupils about the activities and ideals of citizenship unless there are opportunities for participation in the responsibilities of citizenship as far as their abilities permit. The socializing of the content of instruction will avail little for citizenship unless there is a corresponding socialization of conduct. The growing richness of the curriculum will pamper the pupils unless they, as well as the teachers, assume corresponding responsibilities. Lessons in citizenship are not exercise in "lip service" only. Citizenship, intermediate between that of the home and the community, or the state, is school citizenship. The form of the school citizenship activities should be adequate to its own requirements and not an imitation of the forms of the home, the community, or the state. Moreover, the forms of school citizenship organizations should be different in different schools. The school organization should be as simple as possible and should develop as needs arise. The ordinary method of the organization of the club, the preliminary adoption of constitution and by-laws, followed by a search for something to do, is a good example of what not to do in forming school citizenship organizations.

In a certain junior high school it was discovered that

the pupils were being pampered with many privileges and were not taking upon themselves the corresponding responsibilities and duties. The director of this school called the teachers together and addressed them in part as follows: "I wish to call your attention to certain weaknesses which exist in many schools and especially in schools like ours, where the work is highly departmentalized. My observations of the work have led me to believe that we are giving too little consistent daily attention and effort to matters of conduct of the pupils. What we do in this respect is largely negative in nature. We wait until something happens which ought not to happen and then we administer what is supposed to be a remedial measure, which in reality is only a palliative. Sometimes we weary of many corrections and wink at the offense."

Positive moral instruction, not of the preacherizing type (although a certain amount of this is good at the right time) should be a prominent part of each day's work. The pupils should develop standards of conduct, just as they develop standards of composition, science, arithmetic, etc., and conscious daily efforts to attain these matters should be emphasized.

"The following offenses are typical of activities which seem to be too prevalent in our school: -

"1. The pupils frequently have an undesirable attitude toward their teachers which sometimes assumes different forms of small 'horse-play.'

"2. They tell 'gossipy' stories about the teachers and of their work in the school to their parents and others.

"3. Some of the older boys are prone to 'browbeat' the younger and smaller boys. In some instances the older boys have intentionally hurt the younger boys, while the latter have kept silent, not wishing to be dubbed as 'peachers' or as 'boobs.'

" 4. I have noted naughty little feuds among the girls. These feuds persist way beyond the time when the girls of the junior high-school age should get completely over their strained relationships incident to their daily quarrels.

" 5. There are some boys and some girls who have an unweaned desire to create a sensation.

" 6. There is also a tendency among some boys to become rather too 'chesty' over their dignity by virtue of their parents' social, political, business or professional position.

" I bring these minor offenses to your attention, not as having great significance in themselves, but as indicating a need not as yet satisfied in our school work. May we not then begin to develop better standards of conduct through positive means? Remember that matters of conduct are social and therefore must be developed by the group, and to a large extent, enforced by the group. We must have the group spirit so clearly organized and defined that the members of the group, individually and collectively, will not stand for such things as those referred to. It must be so effective that a boy who chooses not to conform to the standards and the will of the group will be effectively coerced."

As a result of the discussion which followed a short period occurring three times a week, known as the "School-planning Period," was established. This was a period in which the pupils of each grade, or of all of the grades together, were to discuss and act upon matters of general welfare to the grade or the school. The pupils were told that this period could be devoted to anything which they thought ought to be done. Some teachers left the room during this period while others remained to answer questions addressed to them by the pupils. As was expected, the pupils had little to say or do at first. During the first two or three weeks of the operation of

the "School-planning Period" the pupils plied their teachers with questions and discussed the meaning of this sudden innovation with each other. Gradually they began to find something to do. While the eighth A class in hygiene were discussing matters of personal cleanliness, one boy ventured the remark that many of the things they talked about in class and agreed ought to be done, were not really done by many members of the class, including himself, and by members of other classes. From this remark it was suggested by another pupil that something ought to be done in the "School-planning Period" to remedy matters of this sort. After considerable discussion this grade appointed a "Clean-up" committee. The committee met and formulated a few rules regarding the ordinary violations of personal cleanliness and appearance, and these rules were accepted by the class. Rules were made applicable to all the pupils of the school and were signed by the committee and posted on the school bulletin board, together with a suggestive note that all violators of these rules would be waited upon by the committee. Desirable results were immediately forthcoming. The personal appearance of many boys and girls showed marked improvement the next day following the posting of the rules. Occasionally the committee found it expedient to speak to a boy about the condition of his hair, hands, ears, or shoes, but no test cases developed. The existence of the "Clean-up" committee organization suggested to another grade the appointment of a housekeeping committee, while another grade organized a "Grounds" committee and still another a committee on general conduct. The latter was soon confronted with a test case. A certain boy had told an untruth, which the pupils called a "whopper," in an attempt to secure some personal advantage. He was admonished by the committee regarding

what such conduct would lead to, but with apparently no effect. The question as to what could be done in a case of this kind, or in any case where the pupil refused to take the advice of a committee, arose. This question was discussed in the school-planning period of the several grades and finally of all grades meeting together. It was decided that there should be officers who could, after due deliberation, impose sentence. The body to be clothed with this authority was constituted by each room electing four of its number, two boys and two girls, who were to sit, enter their complaints, hold trial and sentence. This committee was called the "School Senate." The first case on the "docket" was that of the boy who told the "whopper." The committee entered its complaint and a solemn and dignified trial was held. The accused having no defense to make was sentenced. His offense had occurred on the playground and therefore he was deprived of his play at recess time for one week. But much to the surprise of the other pupils the prisoner broke sentence. Again the senate convened and meted out a second punishment more severe than the first, and again the culprit refused to obey. Before further action the senate called in a teacher to inquire whether they really had authority to enforce their ordinances. When advised that they did, they informed the persistent law-breaker that if he refused to serve his sentence any longer he would be required to sever his connection with the school. This conquered the boy but not his mother, who felt that her son was being misused and accordingly decided to transfer him to another school. The boy, however, had not fought and lost his battle for nothing, for he came to the teachers begging them to ask his mother not to transfer him. Finally, through the combined influence of his father and his teachers the mother was persuaded to allow him to remain. As a result of this experience

the boy's conduct was markedly improved. There were other cases, but none that required the influence of the teachers.

The membership of the School Senate and the various committees changed every two weeks, giving nearly all pupils a chance to hold office. At one time when the pupils were electing a new committee, much to the surprise of their teachers they elected one of the worst violators of the previous committee's work, and when the new committee was organized for business he was made its chairman. The pupils thought that responsibility would sober him down, and they were right, for he turned out to be one of the best law-abiding citizens of the school.

More and more each pupil came to regard himself as responsible not only for his own conduct, but also for that of others. And yet they did not take advantage of each other. There was little quibbling over small things. "Snitchers," "tattle-talers" and "peachers" were frowned upon. However, to help enforce the standards of the school community was the duty of every citizen in private as well as in public life, and any information given to the proper authorities leading to the apprehension and the reformation of the violators of these standards was considered a social duty, and not in any sense "snitching" or "peaching." A certain girl gave information to the right authorities concerning the conduct of three other girls. The information was correct and the conduct of the three girls needed attention, which it duly received. However, the informant spread this information broadcast throughout the school. When the time arrived for the session of the "Senate" there were four hearings instead of three. The girl who had talked too much was properly reprimanded.

A very small part of the school-planning-period time

is taken up with the regulation of misconduct. A great deal of the work is concerned with such matters as school gardens, the lawn, playground plans, dramatics, class projects in manual training or home economics needed for the school, or any affair which requires the collective action of a grade or of the school to accomplish.

All meetings of the pupils are conducted in an orderly and dignified manner. The chairman presides and only one may speak at a time. The importance of the purposes of these meetings and the formality of the procedure afford excellent conditions for oral composition. While the teachers had many misgivings as to the outcome of the school-planning activities, all agree that up to date the results have surpassed their expectations. The forms of organization used in this school might not work in another school, but what is far more important than any particular form of procedure is the method of their development based upon the group consciousness of the real need of each step. Gradually as the pupils evolve, through their experience, standards of conduct, there comes a time when they state and define these standards which become precepts for future action.

Through the "Parent-teachers' Association" and by personal conferences between teachers and parents, the school and the home conduct of pupils should be compared. When there is a great discrepancy between the pupil's conduct in the home and in the school, either the home or the school, perhaps both, should take an inventory of its conditions for conduct.

2. Industry and Labor.—Good citizenship means efficiency in one's vocation. To be efficient vocationally there is: (1) the need of choosing a vocation for which there is a real social demand and for which one is best adapted; (2) having chosen a vocation, there is the need for the best possible personal preparation for it; and (3) there

is need for establishing ethical relationships with all persons in any way connected with the vocation. Whether one is finally engaged in the employment and in the direction of workers, or whether he is being employed and directed, these three needs should be met. The junior high school should emphasize the meeting of the first need and the senior high school the last two.

The best plan for attacking the problem seems to be the study of the vocational opportunities of the community in which the junior high school is located. This study should be an important part of the vocational guidance work of the school. To begin with, a general inventory of industries, business enterprises, and the conditions of labor should be made. In an urban community some such general outline as the following for the data-collecting stage could be used:

I. Manufactures.

1. Location of factories.
2. Products of each—kinds, quantities, values.
 - A. Stone, clay, glass products, etc.
 - B. Metals, machinery, conveyances.
 - C. Wood products.
 - D. Furs, leather, rubber.
 - E. Chemicals, oils, paints, etc.
 - F. Paper.
 - G. Printing.
 - H. Textiles.
 - I. Clothing and millinery.
 - J. Food.
 - (1) Flour and feed products.
 - (2) Fruit and vegetable canning.
 - (3) Slaughtering and packing meats.
 - (4) Dairy products.
 - (5) Bakery and confectionery.

K. Furnishing of water, light and power.

L. Other manufactured products.

3. Factory employees.

A. Nationalities, number, ages, etc.

II. Business.

1. Wholesale.

A. Dry goods, hardware, etc.

2. Retail.

A. Dry goods, hardware, etc.

B. News-stand, etc.

3. Banking firms, trust companies, etc.

4. Laundries.

5. Hotels, restaurants and rooming houses.

6. Garages.

7. Other kinds of business enterprises.

III. Domestic service.

1. Household.

2. Waiters and waitresses.

3. Laundresses.

4. Other personal service, barbers, manicurists, hair-dressers, etc.

IV. Labor.

1. Labor organizations.

2. Non-union labor.

3. Number needed in each line.

4. Training demanded in each line.

5. Supply of workers.

6. Conditions of apprenticeships.

7. Training needed which is not given by apprenticeships or other agencies.

8. Opportunities for advancement in the various locations.

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9. Industrial accidents and diseases. Insurance for the same.
10. Present sources for the supply of labor and defects, if any.

After the general industrial, business and vocational analysis of the community is made, then the needs of the particular class in community civics will determine what lines shall be studied more intensively. Each pupil of the class should begin by studying those vocations in which he is most interested.

Among the important matters to be investigated regarding a given vocation are the following:

1. Health conditions of the work.
2. Moral conditions of the work.
3. The demand for labor in this line of work.
4. The hours of labor per day and per week.
5. Are workers employed for the entire year, or for only a season? If the latter, what is the length of the busy season?
6. Wages, commissions, salaries.
7. Chances for promotion.
8. Training needed.
 - A. Physical qualities.
 - B. Mental.
 - C. Knowledge of a general kind.
 - D. Civic knowledge about the work.
 - E. Skill required.

The pupil will usually need to know a great deal more about a vocation than the above outline would indicate. Probably some adaptation of the departmental analysis chart of the Minneapolis Vocational Survey could be

used.⁸ A course in community civics cannot, of course, furnish all needed vocational guidance instruction, but it should make an important contribution in this respect.

3. *The Community*.—Every community needs better standards along such lines as water supply, dairy inspection, garbage disposal, the elimination of dust, smoke and offensive odors, fly germinators and incubators, and other sources of ill health. Citizens need to improve their taste for city beautification. What is seen from the car windows as a train approaches or leaves the station of an average American city is indicative of this need. In the older and smaller cities the barns, sheds, and outhouses, the relics of the time when every family had its horse, cow and chickens, and also of the time when modern plumbing was not in use, should be removed in the interests of the city beautiful and of public sanitation. Some of the present generation are becoming sufficiently conscious of uncivic conditions to worry and complain about them, but it remains for the coming generation to eliminate them. Any community can be as clean and beautiful as it collectively wills to be.

Our boys and girls need to know definitely about the services rendered by the churches and various other religious organizations, the services of the Welfare Association and other charity organizations, lodges, etc. They should know more about the problems of recreation and public morals of the community. There is danger in some communities that the boys and girls will be led astray by immoral forms of recreation, while in still other communities noted for temperance, sobriety and churches there is a danger that the people will be contented with restrictive regulations and will fail to provide a sufficient variety of healthy recreational opportunities.

⁸Report of Minneapolis Survey for Vocational Education. Bulletin No. 21, 1916. National Society for Promotion of Industrial Education.

Again, the pupils of the junior high school need to know the actual accomplishments of the various departments of the city government, as well as their powers and duties, as a means of developing civic ideals and a knowledge of civic machinery, which should be the possession of every citizen. In this connection, however, they should learn that a good governmental system and the election of good men to office, alone, will not render the most desirable service. The people of the community must have a social program backed up by the deliberations of a democratic and highly representative city club, if the city officials are to do much constructive work.

A general inventory of the social conditions is an important first step in community civics. An outline like the following would be helpful in studying a small city :

I. Social conditions.

1. Census enumeration.
2. Native or foreign—per cent. by nationalities.
3. General characteristics.

A. Agricultural interests.

- (1) Inhabitants of a city owning and operating farms.
- (2) Retired farmers.
- (3) Farm produce and livestock shipping associations.
- (4) Public markets.
- (5) The Grange and other organizations, connected with other agricultural interests.

B. Intellectual interests.

- (1) Extent to which public libraries are used.

- (2) Schools and colleges.
- (3) Lecture courses, study clubs, etc.
- (4) Taking of daily papers and magazines.

C. Home interests and standards of living.

- (1) Shifting or permanent—own homes.
- (2) Telephone communication.
- (3) Use of gas and electricity.
- (4) Household labor-saving devices or conveniences.
- (5) Condition of houses owned by the occupants, and condition of houses rented by the occupants. Rental in relation to property valuation and cost of up-keep.
- (6) To what extent do the people live in apartment houses? Conditions of apartments.

D. Religious interests.

- (1) Denominations.
- (2) Church attendance.
- (3) Social and community work carried on by the churches and other religious organizations.

E. Secular social service organizations.

- (1) Civic and city improvement clubs.
- (2) Welfare organizations.
- (3) Lodges.
- (4) Recreation clubs, boy scouts, campfire girls, etc.

II. Government.

1. Legislative body. Council or commission.
 - A. Ordinance powers.
 - B. Ordinances passed through the year.
2. Executive work actually performed by the following departments:
 - A. The mayor or city manager or commissioners.
 - B. City attorney's department.
 - C. City clerk's department.
 - D. City water department.
 - E. Finance committee's department.
 - F. Public utilities' department.
 - G. City Fire Department.
 - H. City Street Department.
 - I. City Health Department.
 - J. City Police Department.

Community civics need not be confined to a study of a home community. It should be extended to include the principal civic activities and governmental activities of the state. What services to the community are rendered by the state? What does the community do in return for these services? How does good citizenship for the state differ from that for the community?

Mathematics.—A unification of arithmetic, algebra and geometry has been recommended for some time, but progress in this direction has been very slow. Ordinarily the most that has been accomplished in this direction is the use in arithmetic of the simple equation involving one unknown term, and to some extent constructional geometry has been used in mensuration. Arithmetic should form a large portion of mathematics instruction

in the first year and a half of the junior high school and algebra should be emphasized in the last year and a half.⁹

Whatever combination of arithmetic, algebra and geometry may be effected, we are primarily interested here in the socializing function of junior high school mathematics. Since arithmetic represents as yet the only practical phase of mathematics in the junior high school, our discussion will be confined to applied arithmetic.

The so-called applied problems of the arithmetic text are really not applied problems but illustrative problems. That is, the concrete materials are introduced for the sake of developing mathematical principles and combinations. The concrete materials always serve the purposes of the mathematics. In applied problems the reverse is true, *i.e.*, the mathematics serves the purposes of the concrete materials. Mathematics serves as an instrument in meeting certain definite social needs for the pupil in his home, his school and his community. The textbook may be very suggestive in furnishing illustrations of typical socialized problems, but by the very nature of the case, the textbook cannot, of course, provide the real problems of any local situation. The ordinary arithmetic text requires the pupil to solve separate problems involving the same mathematical principles but a heterogeneous collection of objects or transactions to be measured. On the other hand, socialized or truly applied arithmetic introduces organization into the objects and transactions, analyzing a larger problem into many minor ones, while the number combinations are used as the means, not the end, of the work.

In the first place, the arithmetic teacher should try to utilize the pupil's interests as she finds them in his play. In a certain junior high school the arithmetic teacher

⁹ Douglass, "Junior High School." National Society for the Study of Education, Fifteenth Year-book, Part 3, p. 65. 1917.

applied arithmetic along the following lines: By means of graphs and percentages, football games and baseball games, in which the pupils either participated or were interested, were interpreted. The girls canned various kinds of fruit and vegetables in their household arts work which they were permitted to sell at the prevailing commercial prices. The proceeds of the sales suggested the organization of a school savings bank. In connection with this work a school-play bank was organized. A large number of practical problems grew out of the canning and banking interests. The arithmetic played an important part in the home- and school-gardening projects and, also, in the manual-training projects. By means of graphs, diagrams and percentages illustrating relative amounts and increases in production and distribution, arithmetic was made an instrument for solving geography problems.

In view of the fact that they paid tuition and purchased certain books, materials, gymnasium suits, etc., there had grown up a feeling, especially among the pupils of a certain grade, that they ought to have for their individual property everything they made in manual training and household arts and, also, that they should have certain other privileges. As a corrective to this feeling the teacher of arithmetic interested the most ardent self-sympathizing class in working out and classifying the cost for instruction in the various classes and activities and the cost per pupil. When this work was finished its moral effect was perceptible. Besides having mathematical and moral values for the pupils this series of problems happened to be an important contribution in the financial administration of the school.

There are a large number of problems involving the elements of citizenship requiring arithmetical interpretation. Pupils in the junior high school could well under-

take such investigations as the cost of their schooling to their parents and their consequent obligations to their families. Let the problem develop in some such way as the following: What does it cost my father to keep me in school? What will it cost him until I shall be able to complete the work of the junior high school? Data could be gathered for the different grades and estimates made. Of course, the cost would vary with each family. The cost would, also, increase as the pupil grows older. Such questions as the following would enter into this problem: What does it cost my father for my clothes, food, house room, books and school materials, luxuries and entertainments? There are three children in the family who must be educated; the expense for each will be at least as much as for myself. My father's income or salary or wage is so much. He has other expenses besides those required to care for and educate his children. He must help himself and mother. What per cent. of his income is going to my support and schooling? What can I do to reduce my expenditures? Father should be laying aside something in investments or insurance for old age. What can I earn while I go to school, and how should I spend my earnings? By the time I have finished the junior high school I shall have cost my father so much. How much must I earn to make the investment a good one?

If the mathematics of arithmetic were used as an instrument of interpretation in a farming community, Johnny Jones' father's farm, Mary Smith's father's farm, and Ole Olson's father's farm might be taken for arithmetical interpretation. The actual data of the farming business on these farms would be gathered and interpreted; the value of the land would be considered, the cost involved in preparing the land for the various crops, the cost of seeding, of cultivating and irrigating. Next in

order would be a consideration of the capital invested in tools and machinery, and the depreciation in value of the same owing to their wear and tear; also the cost of harvesting crops and the marketing of them—the cost of the hauling to market or shipping point, freight rates, etc., would be important items in the big problem. Following this the gross and net incomes from the sale of products would receive attention; after which would follow a consideration of the most profitable crops and the cost of keeping land up to its maximum productivity standard for each kind of crop. The pupils could be then profitably employed in solving the problem of the percentage of net income on the capital invested. They could compute the wages for the men owning and at the same time working on the farm, and the cost of living for the family on the farm. After all facts were in, they could determine whether or not the owner of the farm realized a fair wage for his labor, a fair interest on capital invested, and whether or not there was any profit over and above wages and interest. Following this kind of work the members of the class could proceed to a study of the market reports of prices, supply and demand with a view to better planning in the future. They could consider such questions as the following: What farm products in the reports show the greatest variation in prices from year to year and within one year? What products show the least variation?

To be successful in socializing arithmetic, the following points should be observed: First, as far as possible the pupils themselves should discover the problems in order that they may be significant to them. In any event the problems should not be arbitrarily selected and assigned by the teacher. Second, care must be taken in gathering and studying the data necessary for the solution of the problems. Much of this work should be done consider-

ably in advance of the time set for working the problems. Third, if the problem is large and complex and involves several minor problems, these should be distributed among the several members or better, perhaps, among small groups of the class, allowing two or three pupils to work each of the minor problems together. Finally, all of the work should be assembled for the solution of the main problem. Fourth, careful attention must be given to the setting up of the equations or the arithmetical statements before the numerical computations are undertaken. In this connection also practical estimates regarding the results to be expected should be made. Fifth, pupils should be given sufficient exercise and drill on abstract number combinations to give them speed and accuracy in their computations.

In addition to the foregoing results we should expect the pupil: (1) to learn to use his books as aids in the solution of his problems, but also, and usually, to work independently of books; (2) to learn to welcome difficulties by learning that there are no real problems which do not give difficulty and that one cannot advance in his work without solving real problems; and (3) having discovered a practical problem which appeals to him as being worthy of his best efforts, he should learn to work upon it for days, if necessary, to solve it.

If arithmetic is to retain its old-time emphasis, and we are inclined to believe that it should, it must be a more powerful and accurate instrument for the pupil to use in controlling his world. No teacher who is able to grasp the idea of making the mathematics of arithmetic primarily an instrument in solving the pupils' home and community problems can fail to succeed.

If then we would make arithmetic of the sort indicated, the only prescription necessary would be a minimum prescription of the mathematics of arithmetic, and that

could be greatly reduced. It would read somewhat as follows:

1. Accuracy and speed in the four fundamental operations upon whole numbers, common and decimal fractions.
2. The simple equation involving whole numbers, common and decimal fractions, and one unknown quantity.
3. (a) A few simple and common applications of the foregoing number combinations, such as buying, selling, discounting for cash, interest after 30 days or 90 days, the simple promissory note, with or without partial payments, simple bank accounts, and the measuring of various articles of consumption and home construction.
(b) A few simple applications in preparation for more mathematics, such as the square, the parallelogram, the triangle, the cube, the pyramid, etc.

It is assumed that methods in arithmetical computations are well developed and, therefore, have no place in our brief discussion on socializing arithmetic. However, one point in this connection should be emphasized. To be successful in socializing arithmetic the pupils should be given a great deal of practice in stating and preparing problems for solution without solving them. The pupil must be able to cope with new and unique situations in applying arithmetic to his social needs. As far as possible, these problems should (1) use the concrete materials of actual social situations which the pupil is able to appreciate, and (2) the arithmetical processes used should be those actually used in the businesses and in the vocations of the community.

Elementary and General Science.—To secure the best results in the elementary science of the seventh and eighth grades, the work should be preceded by nature-study in the primary and intermediate grades. The nature-study point of view, however, should prevail throughout the elementary science work of the junior high school. In the elementary science course as in the nature-study course, only the large topics can be outlined; that is, only those problems which can be foreseen should be included. Many of the most valuable problems arise unexpectedly and for this reason cannot be incorporated in an outline of study, for similar situations may not arise the second time. The following are illustrations of such situations: A seventh-grade boy came into the laboratory and said to his classmates, "This morning, I left my bicycle standing along the south side of the school building. The front tire was soft. At noon, when I got my wheel, the tire was hard. What caused the change in my tire?" At another time a seventh-grade girl asked, "Why can I see my breath on a cold day and not on a hot day?" Other questions which have arisen unexpectedly are the following: "Why will a fire in a stove or a furnace burn more rapidly when the draft is open than when it is closed?" "How can weather be so accurately predicted?" "Why are weeds so abundant in spite of the fact that we are constantly fighting them?" Problems of this type arise daily in the lives of boys and girls and to them the solution is of vital importance. To overlook these problems would be to lose valuable opportunities to make the work of the school play a vital part in the lives of the pupils.

The interests of the pupils, the changes in seasons, the occupations of the people of the community will in a large degree determine the materials to be selected for study. Plant and animal life, soil, the climate, the atmos-

phere, health conditions, and problems in physics and chemistry as they affect the life of the individual and the community in general, form a large part of the work. Experimentation should be encouraged. Wherever possible, the pupils should devise the apparatus which they wish to use in solving their problems.

Gardening should be carried on in these grades. The school garden will best serve as a laboratory in which the boys and girls learn the best methods of gardening which can be carried over into the home and the community. The work, however, should be conducted on a business basis, the school furnishing the ground, tools, and seeds; the pupils who do the work, receiving one-half of the proceeds. All seeds should be tested by the pupils before they are planted in order to determine their germinating possibilities. The method of preparing products for the market, selling price, and the proper delivery of the vegetables to the home of the consumer should be discussed. Accurate accounts should be kept in order that the boys and girls will be able to determine the financial gain or loss in their undertakings. Home gardens should be encouraged and if possible should be undertaken as a part of the school project and supervised by the school. The juvenile market will develop from the school and home gardens.

The common weeds of the community should be studied in relation to the garden, farm, and roadside. If they are of economic importance or are useful in any way, this fact should be emphasized. If they are harmful, the methods of eradication which are most successful should be studied.

An important phase of the elementary science work of the seventh and eighth grades is the hygiene study as it relates to the community. Such problems as the fol-

lowing are of great importance to the boy and the girl of this age: What relation does the board of health bear to the health of the community? How does the city maintain a pure water supply? How does the city dispose of its sewage? How does the city dispose of its garbage? What provisions are made for securing pure milk? Are the streets and alleys kept clean? What measures are taken to prevent the spread of contagious diseases? What can each of us do to help protect the health of the community?

To solve these problems satisfactorily, the pupil must investigate conditions and become acquainted with his community. He can then compare the situation which he has found by investigation in his own community with reports of conditions found in other communities. Due to his knowledge of conditions he will appreciate more clearly the relation of one individual to another and of each individual to the community as a whole, in the matter of health and sanitation. It seems evident that the study of community hygiene should be carried on in the elementary science classes while the study of personal hygiene should be done in the physical training classes.

It is essential that the various units of the ninth-grade course in elementary science, or general science as it is more commonly called, should be closely related and interwoven. Any attempt to present an aggregation of sciences or portions of each as a separate unit does not meet the purpose of the course and can only prove unsuccessful.

A unified course in general science will develop in the pupils a method of attacking problems which will enable them to work more intelligently and accurately, will give them a broad understanding of their environment, will bring them into close relationship with their associates,

and will lead them to feel their responsibilities as members of society.¹⁰

Geography.—It is doubtful whether geography should be given as a separate, required subject in the junior high school. Geography should be united with elementary science. It should be the get-away-from-home part of elementary science. That is, the geography part of elementary science ought to use the more important local interactions of man with his environment as a means of studying similar interactions away from home. Geography should, also, be emphasized in connection with the study of United States history and civics in the junior high school.

Physical Training.—Physical training should be a prescribed subject for several reasons, but chief among those should be its physical development and health values, and its moral value. All who have studied the matter carefully agree that the results of physical training in the grades and high school are not what they should be.

Pupils are engaged in athletic games and contests, swimming, dancing, floor work, and in the so-called corrective gymnastics. As a matter of fact, however, the various kinds of exercises tend to become ends in themselves and physical development and health are frequently injured rather than helped. Such evil effects are not difficult to account for when we consider: (1) how little the average physical training instructor really knows or cares about physical development and personal hygiene; (2) the very strong motive of pupils to excel or to keep up at all hazards with others in doing physical stunts; and (3) the fact, also, that the pupils are very seldom given any systematic instruction in personal hygiene in

¹⁰ The authors are indebted to Miss Florence Billig, supervisor of elementary and general science of the Junior High School of the Kansas State Normal School of Emporia for the section on Elementary and General Science.

connection with their physical training exercises. The boys and girls should be thinking physical development and should be consciously building up resistance against ill health while they are engaged in physical training, to such an extent that they will take proper exercise and care of their health outside of school as well as in.

In addition to instruction in personal hygiene, physical training should provide a large variety of activities adapted to junior high school boys and girls. They should consist of athletics, swimming, dancing, and corrective gymnastics. Two mistakes are frequently made. Boys are allowed to play games all the time and girls to dance all the time. Boys need the games more than girls and are interested in them quite as much. Girls need games as well as boys and are equally interested in them.

As pupils gain experience in athletics true sportsmanship ideals should be exemplified in practice as well as in precept. The various athletic groups should become so imbued with good sportsmanship ideals that the persistent transgressor would be socially ostracized.

Pupils' conduct in athletics has been wonderfully improved in the last decade, but there are still opportunities for improvement. Teachers still regard the existence of athletics in the school as a concession or at best as accessory and not as fundamental activities of the school. If athletics were regarded as fundamental, pupils would not be deprived of the opportunities of participating when their marks are low in other activities, or they would not be kept in from their play at recess to make up their arithmetic work. Pupils should be deprived from taking part in athletics when they fail to be true sportsmen in athletics and for no other reason except physical inability. Delinquency in athletics should be counted as great a failure as delinquency in English, history, etc. The Great War showed the importance of the physically fit,

and athletics will contribute largely to this kind of fitness when we really give it an equal standing with other school activities. But it will be said that athletics are now over-emphasized as shown by the athletic holidays declared and the overlapping of athletic assembly periods upon time scheduled for other activities. This, however, is only another proof that athletics are regarded as a concession—albeit a necessary concession. Again athletics are regarded peculiarly as privileges of the pupil in which teachers in general take little interest—a sort of forbidden although tolerated fruit. We would have a much better condition of affairs if athletics were regarded as a class of activities which must stand or fall upon its own merits, and in which teachers should be as interested as pupils. The problem is how to maintain the balance of interest in all activities. Teachers should be more interested in athletics than they are at present, and if this were true pupils would be more interested in other activities than they are at present.

Household Arts.—A quotation from Mr. Douglass regarding household arts in the junior high school is practically all that need be written here on this subject. "Since practically all girls are potential home-makers, it is the purpose of this group of courses under household arts not only to prepare girls to become better home-makers, but also to make them more intelligent concerning those occupations which were formerly a part of every home, and to give them an appreciation of the factors that make up the municipal environment, and of the influence of these upon the home. The courses themselves fall into three groups: sewing, cooking, and home-planning and decoration. While considerable skill should be gained in actual manipulative processes, still the work should be directed to the broader, more educational end. Outlines of courses in sewing usually begin with simpler

processes, as the making of stitches and simple pieces of clothing, and proceed to machine work, study of textiles, history and economic value of textiles, the relation of clothing to income, care and hygiene of clothing, beauty and becomingness of clothing, and the like. In the same way courses in foods begin by the preparation of standard dishes, but proceed to the balanced meals, foods for children or invalids, economic value of foods, and perhaps the hygiene of digestion. In both courses stress is placed upon practical work and the relation of income to the amount expended for clothing and food; and upon actual rather than 'blackboard' buying. Occasionally, in connection with these courses reference is made to the care of children, and still less occasionally to the more direct phases of motherhood. Courses in home-planning and decorating are not so well worked out."¹¹

Probably more emphasis should be placed upon training for motherhood, the care of children and home-planning in the household arts work of the senior high school. In addition to the health and economic values of household arts we should emphasize what Mr. Douglass has implied, namely, the elimination of the drudgery of home work. There is no reason why a girl should not gain as much insight, inspiration and enjoyment in performing scientifically the work of the home as in any other pursuit open to women.

One criticism against household arts instruction as ordinarily conducted in the junior high school grades is that it is merely a matter of sewing and cooking. What is needed is not merely good needlework and good cooking, although these are very necessary accomplishments, but a better appreciation of values in household arts. Girls and boys alike are, and will be as "grown-ups," more

¹¹ Douglass, "Junior High School." National Society for the Study of Education, Fifteenth Year-book, Part 3. 1917.

largely consumers than producers in this field. For example, pupils should learn what kinds of cloth have the best values, what to select in view of their own needs for clothing, and what is good taste in dressing in view of their economic and social position in life. The hygiene of dress should be emphasized. Until this kind of instruction can be made more effective, the people will continue to be exploited with adulterations and with styles which are uneconomic, unhygienic, as well as unæsthetic. The hygiene of diet should form a very important part of the course. An accurate knowledge of nutrition is one of the great needs of the race. Inspection of the health of school children shows that malnutrition and indigestion are prevalent. The consumer's phase of household arts in the junior high school should be prescribed for boys as well as girls.

Correlation Services.—One junior high school secures needed correlations between branches by the coöperative plan. Whenever a problem arises in a branch which cannot be easily completed in that branch alone, or which needs reinforcement, demands are made upon other branches. As examples of such correlations may be mentioned the frequent demands made by the sewing classes upon the drawing classes, composed of the same pupils, for assistance in designing. Drawing is becoming more and more a course of instruction in designing rather than one as a preparation for fine arts. This change of emphasis is seen to be very important when we consider that all children and grown-ups have great need for a practical knowledge of, and skill in, the various phases of household and commercial designing. Similarly manual training classes make their demands upon the drawing classes.

The demands of both manual training and household arts upon arithmetic are heavy, but very beneficial in the

instruction of the pupils. The cost, proportions and percentages involved in recipes and patterns, and the costs, wastes, and board measures used in connection with materials for manual-training projects make arithmetic a real instrument of social control for the pupils. Graphs, diagrams and percentages, illustrating relative amounts and increases in production and distribution in commodities make arithmetic a good instrument in solving geography problems.

English composition is becoming an important tool in making word designs for manual training and household arts projects, and for writing expositions of projects in geography, history and science.

SUGGESTIONS TO TEACHERS AND STUDENTS

1. How do you explain the existence of the so-called "gap" between the grades and the high school? See Chapter XII, page 319, of this book. What do you understand by the problems of "elimination" and "enrichment"? What relation do the socialization of instruction and the "minimum essentials" of studies have to the problems of elimination and enrichment? See the Fourteenth Year-book, Part I, of the National Society for the Study of Education. See also Sixteenth Year-book, Part I, and Seventeenth Year-book, Part I.

2. A reading period was established in the schools of Gary, Indiana, in which the pupils read what they like from a large number of well-selected books and discussed what they read quite informally with the teacher and with other pupils. What other schemes for developing a taste for good literature can you suggest?

3. What experiments have been conducted to show the value of a greater emphasis upon silent reading? See *Elementary School Journal*.

4. What is the best way to secure good technic in written compositions? What relationships, if any, exist between oral and written composition? Is there any experimental evidence on this question?

5. Trace the steps in the development of grammatical instruction from the beginning of the nineteenth century to the present. See Chapter XI, pp. 293-94, of this book. What recent attempts have been made to write grammars, based upon the needs of pupils for common speech and writing?

6. Is there any experimental evidence regarding the value of developing a spelling consciousness as a supplementary method in teaching spelling? What instances can be cited of the successful use of a spelling hospital in junior high-school grades?

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7. What attempts have been made to make citizenship training the leading motive in teaching United States history?

8. How may the community survey be used in teaching community civics? What relationships may be established between the citizenship activities of the pupils in the school and their instruction in civics? What aspects of community hygiene should be taught in community civics and what in the elementary science course?

9. The general fields of applied mathematics in the junior high school may be described as follows: Mathematics for common, personal use, business and vocational mathematics, and mathematics of public enterprises and expenditures. Analyze each of these general fields into as many projects as possible. Which of these three fields are more important in junior high-school mathematics? Why? How many different kinds of mathematical processes are required to solve the problems in the projects which you have outlined? How would you introduce drills in this work?

10. Plan ten comprehensive projects in elementary science for your community.

11. Show how personal hygiene may be taught effectively in connection with physical training.

12. Show how instruction in hygiene should be shared by elementary and general science, physical training, and household arts.

CHAPTER IV

PROJECT-PROBLEM INSTRUCTION

PROJECT INSTRUCTION DEFINED

THE readjustment of the course of study along the lines previously discussed will only partially solve the problem of socializing instruction. Merely furnishing the appropriate pabulum for the pupils' individual and social development will not suffice. Our methods of instruction must throw the pupil into the adjustment situation. At present he is stimulated in many ways, but his responses are relatively too meager and unsustained to cause him to make fundamental adjustments.

Socialization, motivation, and project and problem instruction are essential phases of instruction. We speak of socialization of instruction: (1) when we refer to the socialized content of instruction which is significant in the play, home and community life of the pupils, and (2) when we refer to the group activities of the pupils in instruction. We speak of the motivation of instruction when school work is so planned that the pupil's working and thinking is directed to satisfying his concrete, definite needs. Instruction is motivated when felt need and interest stimulate desire, and desire leads to self-satisfying action and thinking. Again, instruction is motivated through socialized subject-matter and socialized activities, which are so significant in the life of the pupil that they are felt by him to be significant. We speak of project and problem instruction when we refer to the methods of thinking the pupil uses in satisfying his needs or in securing new controls of his environment.

The word project has usually been used in connection with manual training, agriculture and household arts.

When used in manual training, for example, it means either that individual pupils, or the class as a whole, have planned and completed the making of an article, as a lamp-stand, a serving-tray, a pencil-holder, a towel-roller, a bird-house, etc. When the article is finished the project is said to be completed. Articles called projects are distinguished from such parts as joints, holes bored perpendicular to the surfaces of a rectangular piece of wood, two pieces of iron welded together, etc., in that the former are complete and ready for use, as a table, a chair, or a hall-tree. This is a restricted meaning of the word project, however. A more fundamental meaning of the word is concerned with the mental and motor processes used in making the complete article. When we analyze these processes we find that the pupil forms a purpose to make something, that he plans ways and means of accomplishing his purpose, that he works out or does what he has planned, and finally measures the success of his work by comparing the results with his original purpose and plans. But purposing, planning, doing what is planned, and testing the results of work performed may be the method of learning in any school subject.

A class of pupils, therefore, may be said to have worked out a project when they have consciously and whole-heartedly set up a purpose or have participated in setting up a purpose, have made plans to accomplish their purpose, have executed their plans and have finally measured the results of their work by comparing them with their purpose and plans.

How Projects Originate.—During the war a number of projects arose in connection with the purchase of Thrift Stamps and the work of the Junior Red Cross. The thrift club or group was organized to study the need of purchasing Thrift Stamps, the value of Thrift Stamps as an investment, the ways of earning and saving money with

which to purchase Thrift Stamps, etc. The mathematics of arithmetic was used to compute the interest upon the investment, to determine the incomes from various kinds of work which the pupils might undertake, to keep their individual day-books of earnings and expenditures, and finally to make up their classified accounts in order that they might earn more and save more. Oral composition was used as a means of exchanging individual experiences of pupils regarding the various phases of the thrift project. The improvement in the pupils' ability to speak connectedly and to the point was marked. Written composition was used in writing articles for the school paper telling of their experiences in selling Thrift Stamps or of the ways of earning money to purchase Thrift Stamps. When these compositions were compared with others written by the same pupils following the ordinary procedure in such work, they proved to be superior in thought values, logical arrangement, choice of words, punctuation, and spelling. Elementary science was an important instrument in stimulating and directing the development of home gardens, incomes from which were used to buy Thrift Stamps. Home-garden work was also used in connection with a project of food conservation, producing and saving food.

The general project of producing articles for the Red Cross was organized into a number of minor projects. In the first place, the school organized a campaign for membership; the membership fees were collected by a committee appointed by the pupils, and an application was written by this committee to the proper official asking permission to organize the school as a regular auxiliary of the Junior Red Cross. When the application was granted this committee received the materials for the Red Cross banner, the certificate of membership for the school, and the membership buttons. Another committee was

appointed by the school to arrange for the appropriate ceremony and to give publicity to the occasion when the school was to be made formally an auxiliary of the Junior Red Cross. Another committee was appointed to keep the school informed regarding the suggestions and directions sent by the Red Cross officials for making articles. This committee was made up of boys taking manual training, girls taking household arts, and both boys and girls taking drawing. The members of this committee carried their plans for work into the drawing classes, the girls, into the household arts classes, and the boys, into the manual training classes, where the actual work of producing the Red Cross articles was performed. Before the auxiliary could be formally installed, designs for the banner were made in the drawing classes. The committee decided which was the best design, and the banner was made in the household arts classes. The boys made the wooden rod and staff for carrying the banner in the manual-training classes. The boys, also, made large wooden needles needed by the girls for their knitting work. Still another committee was appointed to purchase the materials to be used in making articles, to keep the entire financial account of the auxiliary and to make regular reports regarding expenditures and the production of articles to the school and to the Educational Committee of the Junior Red Cross Chapter of the community. This committee carried its work into the arithmetic and English classes. The bulletins of the Junior Red Cross and the Red Cross Magazine were studied in the English classes to arouse interest and to furnish information regarding the services which the pupils were undertaking to render. So it happened that a number of subjects of the school were requisitioned for service in the Junior Red Cross projects.

The place and need of this kind of project work seems

to be perfectly clear, but can the project method of procedure be used to advantage in subject-matter more remote from the pupils' daily life? For example, how may the project be used, if at all, in the study of the life of the Puritans in the Colonies? The mere announcement of the topic or a reading of a chapter heading of the history textbook, entitled "The Life of the Puritans in the Colonies," should stimulate such questions as "Did the Puritans live as we do?" "Did they have schools, churches, towns, industries, etc.?" "What did the children do?" "How did they play, etc." After an informal discussion of questions raised, the project arises to find out whether the Puritans had schools, churches, etc., and, if so, to trace these several ways of their living. They could plan to divide the work in pairs, one pupil acting as check against the other. As the pupils finish their several investigations, their findings should be submitted to the class. When all reports are in, the viewing of the results in the light of the original plan should be made. Wherein are the results different from their plan? Did they fail to find some things they attempted? What did they find that they were not looking for?

The pupils might find that they were lacking in some essential skill or knowledge of technique which the socialized projects require for completion. In such cases a project could be formed by a class to develop a certain standard of accuracy and speed in drill work, as for example, in arithmetical combinations in fractions, percentages, or interest.

Problem Instruction Defined.—If the above is a correct description of project instruction, what is problem instruction? As far as our investigations go, problems frequently arise as special cases of the project, although they sometimes arise outside of the project. A problem is a difficulty found by the pupil lying across the path

leading from his felt need to the satisfaction thereof. Alternative suggestions arise in the case of the problem as to whether one means or another shall be chosen to relieve a difficulty or to reach a definite end. Or it may be that the choice of an end is in doubt. In either case there are perplexing difficulties, and before a choice can be safely made there must be further investigation. Finally, at least a tentative choice is made of a certain line of procedure or of a certain end to work for, and then the work proceeds on the basis of this choice until it is shown to be wrong. Again, the problem is predominantly a matter of explanation or interpretation, while the project is in the main a matter of planning to know something or to do something by constructing a scheme of procedure and learning it or doing it, or learning it and doing it. When the two are related the problem appears to be an interruption in the development of the project. A problem in connection with the last project described might be stated as follows: "Why did the Puritans emphasize the development of colleges and grammar schools in advance of elementary schools?" And another problem in this connection might be stated, "Why didn't the pupils finishing the elementary school, plan to go on through the secondary school as the pupils of the elementary school do now?"

PROCEDURES IN PROJECT-PROBLEM INSTRUCTION

The Relation of Recitation to Study.—If the recitation and the study of a lesson occur on the same day, the recitation should precede the study. Among other activities of the recitation, the planning and stating of projects, and the anticipation of problems which may occur in the process of working out the project, are important matters. During the study period the pupils work individually, or occasionally in groups of two or three, upon the projects

or problems which have been planned and stated in the recitation. The general outline of the project is usually constructed by the members of the class working together in recitation, while the various problems or points arising in connection with the project are usually worked out by individual pupils in the study period. Many times, of course, it is advisable to have more than one pupil, or even the whole class, work on one problem or point in a study period. But in the study period they should work as individuals and not as a group.

The amount of time allotted to each subject on the program should not be arbitrarily divided between recitation and study. Suppose, for example, that five fifty-minute periods a week are given to geography in a seventh grade. If the class is originating and planning a project which will require more than one fifty-minute period to advance it to the point where supervised study may profitably be carried on, then another period, or even two or three periods, should be used for recitation if necessary before supervised study begins. In general, the pupils should work in the recitation until they are ready to study, and they should then study until they are ready to recite.

Pupil Activities in the Recitation.—The pupils work as a socially-organized group. At one time they are planning and outlining the project. Sometimes they are raising and stating problems which arise in connection with the work on the project, or independently of the project. Again they are dividing among themselves the work of the project which is to be done in the study period.

After considerable work has been done upon the project or problems, the pupils return to another recitation to report the results of their study to their classmates. While a pupil is reporting the others are listening attentively, taking notes on the report and asking questions about matters which are not clear to them. At

the conclusion of the report the pupils give criticisms intended to complete the development of the problem or part of the project and to help the one reporting. When all reports of problems or parts of the project have been given, the work of summarizing and drawing conclusions begins.

The pupil who has proven himself strong in the work is usually made the leader by the class for the task of summarizing and drawing conclusions. Out of more or less informal discussions of the points brought forward by the individual members of the class, a revised outline of the project is made and conclusions are drawn.

Pupil Activities in the Supervised Study Period.—It is very important that pupils should be free to move about the room to find materials, to use the dictionary, encyclopedia, reference books, etc. All distracting conditions which prevent successful study should be eliminated, such as confusion in using materials, loud talking by both pupils and teacher, conversation about matters not connected with the study, the conducting of a recitation of another class in the room, or the teacher speaking to the whole class at once.

Pupils should work individually, or possibly in pairs. They should be working on problems or parts of a project which were stated and assigned to them or chosen by them in the recitation. Each pupil should write down his part of the project or problem, construct a tentative outline with which to guide his reading or observation, and proceed to think it through before reading or gathering information about it. After he has made his tentative study outline, he should investigate its validity by reading from available sources of information, or by observing, or by performing certain experiments to prove or disprove what he has outlined and to find out what other facts are needed to complete his report. As he reads or observes

or experiments, he should revise his original outline and finally prepare his report for the class.

Teacher Activities in the Recitation.—The teacher's function in the recitation is (1) that of a stimulator, and (2) that of an umpire. She stimulates the class to originate and plan projects, to raise and state problems, which are usually related to a project. She leads them to compare their results with their original plan, to become efficient critics of their own work, to organize their work and make new investigations, to realize their needs for skill and technic which are required in working out a project or a problem, and, through all of their work, to realize the maximum purposeful activity of which they are capable.

No specific methods guiding the teacher's work as a stimulator can be laid down. In general, she should stimulate the pupils by using thought-provoking questions at the right time and at the right place, and by dropping suggestions occasionally when they are needed. However, while the group phase of the recitation is going on she should use questions and suggestive statements sparingly. She should pass her leadership over to the pupils by refusing to do anything which the pupils can profitably do.

As the pupils acquire experience in project work they will gradually evolve and formulate methods of procedure. Then the teacher becomes more and more like an umpire of a game instead of a captain. The pupils will appeal to her frequently, but she should render a decision only after they have thoughtfully tried to overcome the difficulty in the project or problem.

The teacher should use the minimum number of words necessary to do her part effectively, and she should keep herself out of the pupils' group as much as possible, and yet make her standards effective. Much of the time her position should be that of an inspector. She should

retire to the rear of the room, where she can oversee the work and be as inconspicuous as possible. At times, however, she should take charge of the class and exercise the greatest activity in directing their work, but this should be done in order that the pupils may in turn assume their own group direction successfully.

Teacher Activities in the Supervised Study Period.—

The teacher should stimulate successful study activity by the pupils rather than act as an authority or as a general source of information. She should provide the pupils with facilities, materials and sources of information with which to work. She should stimulate the pupils to think accurately in constructing the tentative outlines of their problems, or their parts of the project which they have undertaken to work up for the class by asking individual pupils such questions as the following: "What bearing has step '4' upon the problem?" "What is the relation of point '5' to point '6'?", etc. When a pupil has finished his tentative outline she should stimulate him to gather carefully the information required by his outline by asking such questions as the following: "With what facts do you support this point?" "From what facts do you draw this conclusion?" "Where would you be likely to find reliable information on this point?", etc.

The teacher should stimulate the pupils to do good work in the study period, but she should not do the work for them. Before the pupils recite again she should know accurately what each one has accomplished in the study period, in order that the recitation may be something other than an information-quizzing performance.

Facilities for Project-problem Instruction.—The nature of the project or problem determines the direction of the reading, observation or experimentation to be done. Textbooks are inadequate sources of information. While the teacher should determine in general the kind and the

PROCEDURES IN PROJECT-PROBLEM INSTRUCTION 101

scope of the projects which may arise in her classes, she cannot profitably limit the pupils' sources of information to the ordinary supply of textbooks, references and supplementary books of the average school.

An accessible library becomes very important. Books and reading materials may be either requisitioned and taken from the library to the schoolrooms or the pupils may be sent to the library for supervised study. The latter plan is preferable, (1) because it is impossible to know in advance just what sources will be needed, and (2) because books kept in the library are accessible to more pupils.

If pupils are sent to the library a librarian should supervise their study in exactly the same way that the regular classroom teacher does. The pupils should go to her with the class project stated and outlined, and also each pupil should go with his part of the project or problem stated and tentatively outlined. The librarian should teach the pupils to find the required information. She should be a successful stimulator of activity and she should see that the pupils grow more independent in finding and using library materials.

Examples of Project-problem Instruction.—It is exceedingly difficult to secure records of projects worked out as completely as the theory of the ideal project requires. Some records lack in the failure to draw conclusions; some, in the failure to compare conclusions with the original plans; some lack in individual activity; and others, in class activity. On the whole, however, the following examples show individual initiative, group coöperation, and systematic, sustained and purposeful activity.

Moreover, the limitations of space in a treatment of this kind make it impracticable to give in detail the class discussions by which the various points, problems and

conclusions were developed. It is, also, impracticable to record the various preliminary outlines and studies, many parts of which were necessarily discarded because they had no value in the final organization of the project, although they may have been extremely valuable as groundwork for the project. Only the final drafts stripped of unnecessary details are given.

The examples show a variety of procedures. Some of the projects were initiated and worked out by the class as a whole; some were originated and worked out by individuals and reported by them to the class, while others were originated and worked out by the pupils both individually and in class groups.

While an eighth-grade geography class was studying the dominating trade centres of the United States, the following project originated with one of the pupils. It appealed to the class as being worthy of their study, and accordingly it was adopted as a class project. The members of the class working together in the recitation period made a tentative outline of the points required in planning the project. Then the members of the class read from various sources during the supervised study period, using the outline as a guide. When the class met again for recitation the outline was revised. Then followed in the next study period an investigation of the various points of the revised outline by different members of the class. The following is an exact copy of the work of the pupils:

PROJECT-PROBLEM INSTRUCTION IN EIGHTH-GRADE GEOGRAPHY

Project.—"To show why the trade of New York is greater than that of San Francisco."

I. THINGS WE NEED TO KNOW BEFORE WORKING OUR PROJECT.

1. Value of trade in tons and money.

2. The location of the two cities.
3. The kinds of harbors.
4. Position.
5. Good railways.
6. Transportation on water.
7. Articles of trade.

REVISED OUTLINE

1. The value of trade in money and quantity of trade in tons.
2. Description of the two harbors.
3. Position of the two cities with reference to our country; to foreign countries.
4. Articles of trade.

ORIGINAL OUTLINE—MARLEY THOMPSON

II. DESCRIPTION OF THE TWO HARBORS.

New York.

- (a) Average depth of New York harbor is 50 feet.
- (b) Deepest place is 67 feet.
- (c) Shallowest place is 18 feet.
- (d) No sandbars.

San Francisco.

- (a) Average depth of San Francisco's harbor is 30 feet.
- (b) Deepest place is 126 feet.
- (c) Shallowest place is 2 feet.
- (d) Quite a number of sandbars.

Rules for good harbor.

1. Vessels should have 30 feet of water to float with ease.
2. Harbor should have sufficient area—several square miles.
3. It must be locked, so that a vessel can ride at anchor safely.

4. It must be tideless or nearly so.
5. The deep water must extend to the shore.

Facts regarding New York harbor.

1. Great piers have been built on the New Jersey side as well as the New York side of the harbor.
2. The port of New York has 450 miles of water front, 125 miles of which the largest steamer can navigate.

After discussion and criticism by the class the outline was rearranged with the main points in the following order:

1. Rules for good harbor.
2. Depth.
 - (a) New York harbor.
 - (b) San Francisco harbor.
3. Added facts.

References:

- (a) TARR AND McMURRY: "World Geography," pages 37 and 125.
- (b) "Great Cities of the United States," pages 32 and 230.

ORIGINAL OUTLINE

[NOTE.—Because of the absence of the pupil to whom this report was assigned the class worked it out as a group.]

III. POSITION OF THE TWO CITIES WITH REFERENCE TO OUR COUNTRY; TO FOREIGN COUNTRIES.

New York is situated as a natural market for our manufacturing states and cities. The port is within short distance of our oldest and most densely settled region. It is situated on the Atlantic, toward which all of our trade has tended for years. It is directly opposite the great commercial countries of Europe. There is a direct

waterway to South American ports. The distance across the Atlantic is short.

San Francisco is situated a little south of the middle of our western coast. The position is good for trade with other Pacific states. However, this city, up to the present time, has had difficulty in trading with European countries; the Panama Canal has helped and will help more. San Francisco faces the Orient. This is a disadvantage, in that the Oriental nations have not been great commercial nations. The distance to Oriental countries is much greater than to Europe.

References:

1. "Essentials of Geography," pages 86 and 182.
2. "World Geography," pages 37 and 125.
3. "Great Cities of the United States," pages 30 and 230.

[NOTE.—No revised outline was made of the above report.]

ORIGINAL OUTLINE—JOHN ROBERT GROH

IV. ARTICLES OF TRADE.

1. San Francisco: San Francisco is the greatest city in the United States for the shipment of wheat. It also ships cotton, canned goods, oil, barley, prunes, flour, dried fruits, leather, machinery, lumber and corn products. The steamers coming in are loaded with raw silk, coffee, tea, copra, nitrate of soda, tin, sugar, rice, cigars, coal, burlap, vanilla, cheese and Manila hemp. Copra, the main export from Samoa and from many Pacific islands, is the dried meat of cocoanut. It is of value for food and for oil.

2. New York: The leading imports of New York are: rubber, silk goods, furs, jewelry, coffee, tea, sugar and tin. The most important exports are: cotton, meats and breadstuffs. Added to my own list, corn and manufactured goods.

References:

1. "Great Cities of the United States," pages 32 and 231.
2. "Essentials of Geography," pages 87, 178 and 180.
3. "World Geography," page 187.

[NOTE.—The above study was not revised because it had so little value in relation to the main project.]

ORIGINAL OUTLINE—EVELYN GEESLIN

V. SOURCES OF MATERIALS OR TERRITORIES SUPPLYING ARTICLES.

1. New York: New York is located in the midst of a great manufacturing region. It gets material from New England and from the Great Lakes region. From the Great Lakes region the materials are carried through the lakes down the canal to the Hudson, and also by many railroads leading to New York. It gets trade from almost all parts of the United States. It exports cotton, raw and manufactured, to England. New York imports chemicals and drugs of different kinds from Germany. It also imports tin and iron from Australia; rubber and coffee from Brazil.

2. San Francisco: San Francisco carries on slaughtering and meat-packing, which are very important industries. It also has a great shipbuilding plant. It imports iron. The surrounding country is engaged in agriculture. San Francisco is the opening for the great California valley. The two principal rivers are San Joaquin and Sacramento.

References:

1. "Great Cities of the United States," pages 32, 39 and 222.
2. TARR AND McMURRY: "World Geography," page 126.
3. "Essentials of Geography," pages 87, 89, 175, 179, 180.

[NOTE.—The class added to Evelyn Geeslin's report the following facts, which are much more significant in relation to the main project than her report.]

Cattle and their products are shipped from beyond the Mississippi to New York; immense quantities of grain are sent there from the great agricultural states of the Mississippi valley. New York is the chief market-place of our country, because the largest part of our country is connected with it by railroads and waterways.

San Francisco draws trade from a much smaller area in our country. The foreign countries with which she trades do not demand things in such large quantities.

ORIGINAL OUTLINE—EDWARD POTTS

VI. EASE OF TRANSPORTATION.

1. The East is more densely populated than the West.
2. This makes a great demand; hence greater transportation.
3. Railroads are more easily laid than in the West.
4. The civilized world is on the East. America was discovered in the East.
5. Four railroads run into San Francisco, as against twelve running into New York.
6. New York is the financial centre of the United States.
7. The Erie Canal connects New York with the Great Lakes and the St. Lawrence River.
8. New York has a population of 5,000,000; San Francisco 400,000. New York is the first city in size in the United States; second in the world.
9. New York carries more than half of our foreign trade and leads all cities in manufacturing, and has one of the best harbors in the world.
10. New York has wonderful underground, elevated and surface systems of transportation.

11. San Francisco is the eleventh city in size in the United States and has one of the finest harbors in the world; also the chief city for trade with the Orient, and leads all cities of the United States in exportation of wheat. There are also many great canning factories in California.

References:

1. "Essentials of Geography," page 87.
2. "Great Cities of the United States," page 28.
3. "World Geography," page 37.

[NOTE.—No revised study was made of the above report.]

CONCLUSIONS

After a thorough discussion of the foregoing reports, made by individual pupils, the class decided to adopt the following points as their conclusions of the project:

OUR CONCLUSIONS

1. The total trade of New York is fifteen times that of San Francisco in money value; the tonnage is thirteen times that of the latter city.
2. The average depth of New York harbor is greater; its water front and area is much larger than that of San Francisco, and therefore can take care of more boats at once.
3. New York is the outlet of a great manufacturing region, which always means much trade. San Francisco is the outlet of a great agricultural country.
4. San Francisco is not the outlet of a great water route, while a great per cent. of New York's trade comes by way of the Great Lakes and Erie Canal.
5. New York faces the great commercial nations of Europe, while San Francisco faces the more backward nations of the Orient.

6. New York is the great distributing centre for our country.

7. The territory supplying New York trade is many times that of San Francisco; New York draws trade from at least three-fourths of our country. San Francisco is far from the centre of population, and the greater part of her trade is limited to the country west of the Rocky Mountains.

Problem Instruction in Arithmetic—Seventh-grade Class.—The following are abbreviated records of problem work in arithmetic. Types of problems in arithmetic arise from three main sources. First, and of most importance, are the problems which occur in connection with projects arising from other subjects in the curriculum. This serves not only as an economy of time in correlating subject-matter, but, also, as an excellent basis for the application of the mechanics of arithmetic. From this aspect of the subject arithmetic in the upper grades may be termed more and more a service subject. Second, problems arise from interests stimulated, when a new subject is considered in arithmetic. Third, problems arise in connection with general school interests.

The various departments make service demands upon each other. The following problems represent a demand by the pupils in a home economics class upon an arithmetic class to which the girls belong. The boys of the class in arithmetic were interested in helping the girls solve such problems.

I. ARITHMETIC PROBLEMS ARISING IN OTHER SUBJECTS

1. Domestic Science Lesson in Mashed Potatoes. Data brought to arithmetic from cooking lesson in spring of 1917:

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Weight of potatoes	Portion	Cost per lb.
2 lb., 5 oz.	6	5½c.
Amt. butter each used	Total amt. for	Cost per lb.
½ ts.	6?	45c
Amt. milk each used	Total amt. for	Cost per lb.
2¾ ts.	6?	5c
Measurements to be used:		
2 cups butter—1 lb.		
32 tablespoons butter—1 lb.		
16 tablespoons milk—1 cup.		
2 cups milk—1 pt.		

Such questions as the following arose from this data:

1. What was the average amount of potatoes each used?
2. What was the cost of mashed potato each made?
3. What was the total cost of mashed potato?
4. What was the cost of raw potato used by each? Total amount?
5. What was the cost of milk and butter each used? Total amount?

II. The project which arises in connection with the subject-matter of the arithmetic course of study.

1. The following problem arose in connection with the general study of investment. This particular one arose out of the pupils' study of the cost of their own living.

Statement of the problem: "Is it cheaper to buy or rent a home in Emporia?" This problem gave rise to the following problems which were worked out by eighth-grade pupils, using their own homes as the basis of information:

Renter:

1. What is the rent paid?
2. What is the value of your house, and has the value changed? If so, what change has been made?
3. How long have you rented this house?
4. How much interest did you make on money with which you could buy this house? Or how much interest could you have made on the money required to buy this house?

Owner:

1. What did you pay for your home?
2. How much is it worth now?
3. When did you buy it?
4. What was the rate of interest charged at the time you bought the house and has it changed since date of purchase?
5. What permanent improvements have you made? Cost?
6. What is the annual insurance on the property?
7. What temporary improvements, such as tinting walls and painting the outside of the house have been made?
8. What are the taxes on the property?
9. What was the rental value?—*i.e.*, what could you have rented your property for at the time of purchase? Has the rental value changed since that time? If you rented your property at the time of purchase, what did it rent for? Has the rent changed since that time?

In considering the problem the pupils found that they must consider their own homes from the standpoint of the renter as well as that of the owner. With the above outline in hand they sought the necessary information in their own homes, and then the problems were ready for solution.

2. The following problem arose out of the pupils' interest and work on problems of the cost of living in connection with the general study in the course on investment: "Can a man support comfortably a family of five on \$100 a month?" The pupils attacked this problem by itemizing different expenditures as far as they could make them out in school, and then with the outline in hand they sought information in their own homes. The following ledger sheet is a copy of one child's problem:

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	Debit.	Credit.
Salary	\$100
Taxes		\$5.00
Lights50
Water		1.75
Groceries		25.00
Repairs		3.00
Clothing		15.00
Education		5.00
'Phone		1.25
Doctor bill		3.00
Fuel		10.00
Enjoyments		5.00
Balance for savings account.		26.50
	<u>\$100</u>	<u>\$100</u>

II. TYPE OF PROBLEM ARISING IN CONNECTION WITH GENERAL SCHOOL INTERESTS

This problem arose from the fact that many of our pupils felt that the school owed them much on account of the small tuition fee which they paid to the school. So it was suggested that an excellent problem would be as follows: "To find out what is the cost per pupil to the school for one year."

As a group, they made an outline of the items they would need to know.

PUPIL'S ACCOUNT WITH THE STATE (FOR ONE YEAR)

Total salaries of teachers and janitor	\$16,128.08
Supplies, books, papers and materials for Miss	
Beye's and Mr. Wells's departments.....	296.45
Light	245.52
Heat	503.93
Water	82.19
Miscellaneous expenses	1,336.14
Amount received for tuition		\$810.66
Balance		17,986.10
	<u>\$18,796.76</u>	<u>\$18,796.76</u>

Number of pupils in school during school years, 192.

Number of pupils in school during summer session, 263.

Average number in school, 227.

Cost per pupil, \$79.23.

In order to ascertain the above facts the pupils first organized, and each one had a certain number of teachers to see in order to find out what per cent. of their time they spent in the school as compared with the amount of time spent in the instruction of college students in the Normal School, so that the exact salary which should be charged to the school could be determined. This served as excellent percentage work. Then a committee was appointed to visit the bursar's office and ask him to make a list showing the other expenses of the school. The conclusions of this problem were very evident from the result obtained. The pupils keenly appreciated what was being done for them.

Project-problem Instruction in Elementary Science.—

During an informal discussion in an eighth-grade elementary science class concerning the hygienic conditions of their home city, this general project was stated: "To find out what problems confront the city of Emporia in maintaining the health of its people."

The working out of the project involved many problems. As the discussion progressed, the following questions were raised:

1. What relation does the Board of Health have to the health of Emporia?
2. What provisions are made for securing pure milk in Emporia?
3. How does Emporia secure pure water? What is the condition of the water in Emporia?
4. How is the sewage disposed of in Emporia?
5. How is the garbage disposed of in Emporia?
6. What care is taken to keep the streets and alleys clean?

7. Why should we fight the fly? What is done in Emporia to fight the fly?

8. Why should we fight the mosquito? What is done in Emporia to fight the mosquito?

9. What does Emporia do to prevent the spread of contagious diseases?

10. What means has Emporia to protect its people from disease?

11. What can each of us do to help in the protection of the health of the people of Emporia?

Evelyn Geeslin, a member of the class, was assigned the problem to show: "How Emporia takes care of its garbage."

The following is a record of her work:

1. Every town has garbage.

2. Garbage must be taken care of or else it will cause sickness.

3. Garbage must not be thrown on the ground, for it will draw flies.

What I want to know in order to solve my problem:

1. What is garbage?

2. What laws are there in Emporia concerning the disposal of garbage?

3. How is the garbage of Emporia disposed of?

4. Who has charge of garbage disposal?

5. How does Winfield, Kansas (the so-called child's home town), take care of its garbage?

Discussion (as given by the pupil to the class):

Garbage is waste from the kitchen, such as potato and apple parings, bones, corn-cobs, corn-husks, etc.

Revised ordinances of Emporia, 1915, section 146:
"Refuse in street; penalty. Any person who shall in this city cause or suffer any offal, manure, rubbish, filth, or suf-

fer any vegetable or animal refuse or any foul or noxious liquors to be discharged out of or flow from premises occupied by him to be thrown into, deposited or left in or upon any street, alley, public square, vacant lot or any public place in said city shall be fined any sum not less than five dollars nor more than one hundred dollars."

Revised ordinances of Emporia, 1915, section 321: "Garbage. No garbage or obstructions of any kind shall be deposited in any catch basin, manhole or sewer, and no person shall damage or remove any portion of the catch basin, manhole, lamphole, flush-tank or sewer. The installation of slop-hoppers outside of buildings is prohibited."

From a visit with Doctor Corbett, the health officer of Emporia, I found:

1. Garbage must be separated from rubbish.
2. Garbage must be placed in a closed bucket or can near the alley. If it is not in a closed bucket or can the garbage-man need not collect it.
3. Garbage must be collected in a closed wagon, three times a week in summer and once a week in winter.
4. Some garbage is buried in trenches north of Emporia. The garbage collector can make use of any garbage he collects. The incinerator in which the garbage was, previous to this time, burned is now broken and will not be repaired because it is considered an unnecessary expense to the city.
5. The garbage collector is hired by the health department. He is paid \$100 a month by the city. He must furnish and keep his own horses, but the city owns the wagons in which the garbage is collected.
6. Garbage in open cans is a good breeding place for flies; flies carry diseases.

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In order to know what some other city is doing with its garbage, I wrote the following letter:

EMPORIA, KANS., 606 West 12th,
June 26, 1917.

TO THE BOARD OF HEALTH, WINFIELD, KAN.:

MY DEAR SIRs.—In my science class I am working on the garbage problem of Emporia. I would appreciate any information you might give me concerning the following questions:

1. What laws have you concerning the disposal of garbage?
2. How do you dispose of the garbage?
3. Is garbage collected regularly in your city?

Please send me a copy of the ordinances of Winfield. I thank you for this favor.

Yours truly,

EVELYN GEESLIN.

In answer to this letter the following information was received:

1. Garbage must be kept in a closed can, easily accessible for removal.
2. One man and a team work full time in gathering garbage.
3. Garbage is collected regularly.
4. There are no published copies of city ordinances for distribution.

References:

Revised ordinances of Emporia, 1915, sections 146 and 321.
Board of health, Emporia, Kansas.
Board of health, Winfield, Kansas.

This report was followed by a report from Herbert Drake, who made a careful investigation of the garbage cans in a section of the city near the school: "In this district there were forty houses. In all but twelve cases there was a receptacle of some kind in which to put garbage. In these twelve cases the garbage was emptied on the ground. In seven cases the garbage was emptied in wooden boxes; nine families put garbage in uncovered tubs, while seven used old pails. Five families had regulation garbage cans. These were the only ones which had covers. I am going to investigate other alleys, but from this study I do not believe the good rules which Emporia has regarding garbage disposal are being strictly enforced."

This study was followed by a discussion of what

other cities, as Chicago and New York, are doing along this line. The part each member of the class could play in improving the situation was carefully considered.

Dan Schaffner, another member of the class, worked out the following problem: "To study the water situation, to find out its relation to the health of the people of Emporia."

What I know about my problem:

1. Emporia secures its drinking water from the Neosho River.

2. There is a pumping station about two and one-half miles north of town which pumps the water from the river. The big tanks are located about one-half mile from the river. There is a water-tower which forces the water to town.

3. We are sometimes told to boil our water because it is not pure.

4. Mr. Smith is superintendent of the waterworks.

What I want to know to work my problem:

1. What are the dangers of impure water to health?

- (a) Typhoid fever.

- (b) Cholera.

2. What home methods are used for purifying the water?

- (a) Boiling.

- (b) Settling.

- (c) Distilling.

- (d) Filtering.

3. How does Emporia secure a pure water supply?

4. How does Emporia keep its people from wasting water?

Finding the problem too extensive, Dan Schaffner secured assistance from other members of his class, but he took up the first problem, which he stated as follows: "What are the dangers of impure water to health?"

What I want to know about my problem:

1. What diseases are dangerous because of impure drinking water?

2. How long have people known that impure water is dangerous?

I secured good information on my problem from the following references:

Gulick Series, "Town and City," pages 99 to 140.

O'Shea and Kellogg, "Health and Cleanliness," pages 170 to 190.

Hunter, "Civil Biology," pages 289 to 383.

Discussion (by Dan Schaffner):

Two thousand years ago the Romans knew that pure drinking water was the secret of good health. To get pure drinking water they built an aqueduct to the Latin Hill, many miles away. They did not use the water from the Tiber, which ran through the city, for they were afraid of it. The Romans knew one thing—that impure water is dangerous to health.

The Chinese knew this, too. They also knew that no matter how dirty the water was, a few minutes boiling would make it as safe as if it had come from a spring. The Chinese usually put a few leaves of tea in the water.

In England the people have been slow to realize the importance of pure drinking water, as the London epidemics showed.

Epidemics of	Duration.	Deaths.
1847	23 weeks	13,565
1854	23 weeks	10,684
1865	23 weeks	5,564

The deaths in these epidemics were caused by cholera, the germs of which were in the water that the people had been drinking.

Typhoid fever is another disease caused by impure drinking water. In Cleveland, Ohio, deaths due to

typhoid fever in 1904, before the new intake was installed, were:

In February	45
In March	50
In April	27

Emporia secures its drinking water from the Neosho River. The water is filtered before it is turned into the mains. Before the filters were installed the water was allowed to settle in large reservoirs. It was boiled or filtered in many of the homes before being used. The Emporia ice plant sold distilled water to those desiring it.

Water contains many germs which are harmful to health. Typhoid fever and cholera are two diseases commonly caused by using impure drinking water.

Charles Coleman worked out the next problem concerned with the water problem, which was stated as follows: "What home methods are used for purifying water?"

What I want to know about the home methods used in purifying water:

1. How does boiling purify water?
2. Why does boiled water taste "flat"?
3. How long should water be boiled to make it pure?
4. Will freezing kill germs?
5. Why should boiled water be kept in a cool place?
6. What good does settling do?
7. How is water distilled?
8. Why is water distilled?
9. What does the home filter do to water?

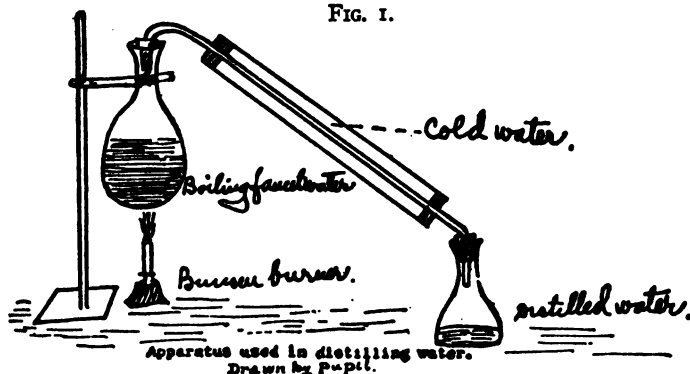
References which I consulted in working my problem:

Red Cross Text, Elementary Hygiene, and Home Care of the Sick, Hessler, "First Year of Science," pages 80, 87, and 115; Pease, "General Science," pages 68 and 69; Elhuff, "General Science," pages 87, 138, and 226; Caldwell and Eikenberry, "General Science," pages 107 and 108; "Emporia Ice Plant," Gulick Series, "Town and City," pages 117 to 132.

Discussion as given to the class by Charles Coleman.

There are several ways of making impure water safe for drinking purposes. Boiling is a very common way used in the home. The water should be allowed to stand for some time in order that all solid matter in the water will settle to the bottom. The water should then be carefully turned into another vessel, not allowing the settlings to go into the second vessel. The water should then be boiled for at least twenty minutes. A longer time would be better.

FIG. 1.



The vessel should be covered and the water should be cooled. It can be poured from one vessel to another to allow it to mix with the gases of the air. After doing this it will not taste "flat." The water should then be put in sterilized jars or bottles and put in the ice-box to cool.

Boiling the water kills the bacteria in the water. Freezing does not kill bacteria. It only stops their multiplication. When the ice melts, and becomes warm enough, the bacteria begin developing again. If the boiled water is kept in a cool place it tastes better.

In many homes the solid particles in the water are allowed to settle in the bottom of the vessel.

Lime will make the water become clear. Lime forms a precipitate which settles to the bottom, carrying with it many bacteria. Settling really only frees the water from solid particles and does not purify as far as bacteria are concerned.

Distilling is one way of purifying water. It is really a very simple thing to do. By boiling, water is changed to vapor, which in turn is condensed.

While in the form of vapor, the water is carried through sterilized pipes to another tank. No germs or solid parts will pass from the first tank to the second.

The pupil distilled some faucet water. To show the process more clearly, red ink was put in the tank and heated. Only clear water was caught in the second tank.

The class visited the ice plant of Emporia, where water is distilled in the commercial way. Distilled water is used in the manufacture of ice.

A short report on filters was given by Joe Longshore, a member of the class. The detailed study of a filter was taken up when the sand filter, used in Emporia, was studied. The filter question was stated in the form of a problem as follows: "Of what value are filters in purifying the water?"

What I want to know about filters:

1. What is a filter?
2. What is the purpose of a filter?
3. What kinds of filters are used?

I consulted the following references in working out my problem:

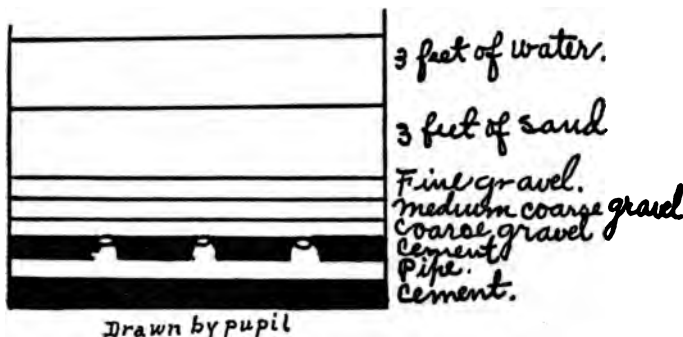
Gulick Series, "Town and City," pages 125 to 132.
O'Shea and Kellogg, "Health and Cleanliness."

Discussion by Joe Longshore:

Filters are used in many homes. Charcoal, sand and various kinds of stones are used. These serve mainly to clarify the water. The danger in the use of home filters is almost as great as in the use of water which has not been filtered, because they are not always kept clean. Home filters require absolute cleanliness.

It has been found that large city filters are of the greatest value in protecting the city from disease. It has been found by experimenting that filtered sewage can be made safe to drink.

FIG. 2.



The secret of the value of the sand filter is that on each grain of sand there are microbes. There are more on the surface of the filter than farther down, for they need oxygen. These friendly microbes find their best food in the worst kind of sewage. They are responsible for purifying the water.

Filters are generally made with a cement bottom. In this is laid a pipe which has openings through which the water can pass. Above this is a layer of coarse gravel, a layer of medium coarse gravel, and a layer of fine gravel about the size of a pea. On top of this are three or more feet of sand. The water is on top of the sand.

Class conclusions drawn from the study of the methods used in purifying water.

1. Water can be purified by settling, boiling, distilling, using chemicals, and by using filters.

2. Settling is commonly used, but is not safe, for microbes are not killed. Some may settle to the bottom with the solid matter.

3. Sand filters are excellent for commercial uses.

4. The common home filters are dangerous unless kept absolutely clean.

5. Distilling is the best way to purify water. All dishes used should be sterilized before being used to hold distilled water.

6. Boiling is the best and most convenient means of purifying water.

The next problem of the water problem, "How does Emporia secure a pure water supply?" was worked out by the class.

What we want to know :

1. Where does our water come from?

2. How is the water pumped?

3. What processes does the water pass through on its way from the Neosho River to our faucets?

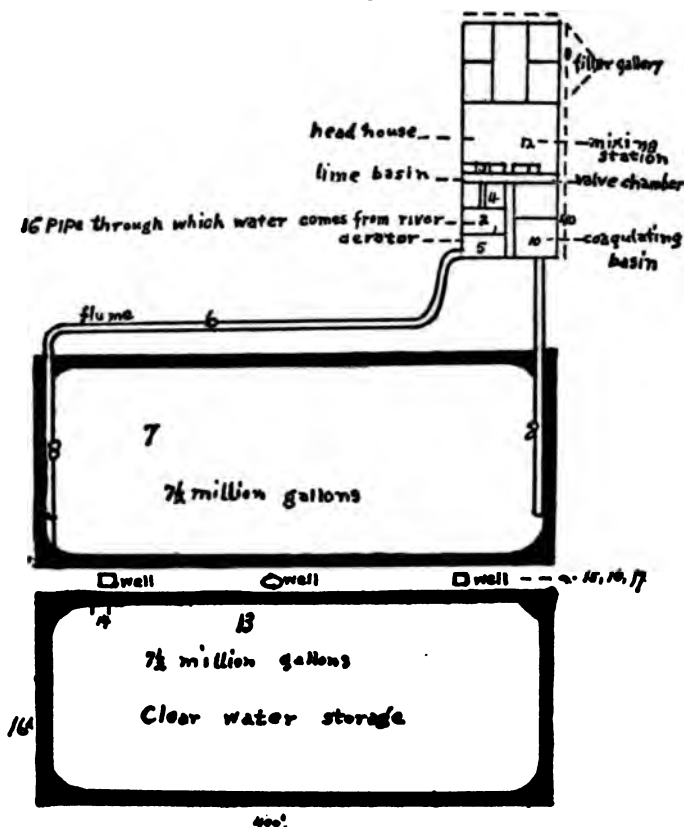
4. We want to visit the water plant.

Mr. Alva Smith, superintendent of the Emporia water department, went with the class to the pumping station and to the filter station, explaining every process through which the water passes before being turned into the mains. Notes were taken by the class. Samples of the gravel and sand used in the filter and of the alum and lime used were given to the class. Diagrams were made by the class. Copies of a few of the diagrams are reproduced here. They are in each case as nearly as possible like the originals.

1. Source: The water of Emporia comes from the

Neosho River. There are two dams in the river. The Ruggles dam is located seven miles up the river from the pumping station and holds back 400,000,000 gallons

FIG. 3.



of water. The dam at the pumping station holds back 110,000,000 gallons of water.

2. The pumping station: The water is pumped by an electric pump:

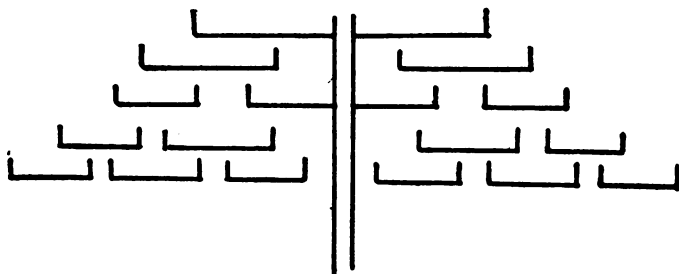
3. Pipe line: The water is pumped from the Neosho

River and is carried through a sixteen-inch pipe to the aëerator.

4. The aëerator (see figure 1 for location of aëerator): The aëerator has a concrete foundation. There are sixteen pans, arranged as shown in figure 2. The water comes through the sixteen-inch pipe (2) and empties into the upper pan. The water is aërated as it falls from pan to pan. This oxidizes the iron soluble to an insoluble form, and frees the water of gases.

5. The lime-head: The water is carried from the

FIG. 4.



16" pipe through which water comes from the river.

aëerator through a trough into a small basin (Fig. 1, sec. 3) in the building. Here lime is introduced into the water. The lime-head holds 4500 pounds of lime. This amount lasts about two weeks. The rate of feeding can be changed.

6. The coagulating basin: The water, after receiving the lime, passes over and under a series of baffles, and is then carried to the coagulating basin (4), which is north of the aëerator. The coagulating basin is fourteen feet deep and has a number of baffles. There is a scum on the water, which is caused by the floculates. The water is carried from this coagulating basin to the coagulating basin (5), south of the aëerator. This basin also contains a series of baffles.

7. The reservoir: The water is carried from the south to coagulating basin (5) by means of flume (6), to the north reservoir or settling basin (7). The water empties into a trough (8), along the west end of the tank. From this trough the water overflows into the reservoir and does not produce a current. This reservoir, which is 400 feet long, 160 feet wide and 20 feet deep, holds seven and one-half million gallons of water. From this north reservoir or settling tank (7) the water is carried through a trough leading from the trough (9) along the west side of the settling basin to the east coagulating basin (10). The flow of water into this basin is regulated by a gate at the entrance to the basin. This basin is eleven feet deep. Here the water passes over and under a series of baffles to the mixing chamber (12).

8. The alum-mixing station: This station (12) is inside the building. The alum troughs are upstairs. These hold 600 pounds of alum. Water is poured on the alum until it is dissolved and until a two per cent. solution is made. On a second floor there is a chemical room, which contains two orifice boxes, which control automatically the amount of alum which enters the mixing basin (12).

9. The filter: Water from the mixing station enters a trough along the west side of the filter through a pipe about three feet from the top of the wall. The water enters the filter from the trough through holes in the wall. This water forms a mat flocculant over the sand. After the water has filtered through the sand it is carried through six-inch pipes into the clear-water well. There are wheels in front of each filter which regulate the entrance of water into the filter. There are four filters—(1), (2), (3), (4).

10. Washing the filter: The water is first drained off. Air is forced through the six-inch pipes in the bottom of

the filter. This stirs up the sand. Water is then forced through the sand. The muddy water is carried off through troughs into pipes which lead to the river below the dams. Water is then emptied into the filter as described in the preceding discussion of filter.

11. The clear-water well: Water from the filter enters the clear-water well, which is under the entire filter room. This well is 53 feet by 31 by 10 feet. The water is pumped from the clear-water well to the south reservoir (Fig. 1, Sec. 13). The pipe which carries the water from the clear-water well to the south reservoir runs underground and has its outlet (14) about five feet from the top of the basin.

12. Wells: Between the north and south reservoirs there are three wells (Fig. 1, Secs. 15, 16 and 17). The water from No. 15 is piped to the city. Well 16 was used under the old system of water supply, but is now abandoned. Well 17 is used when the basins are drained. The water is then carried to the sewer, which empties into the Neosho River below the dams.

13. Water tower: The water tower gives the pressure for the water used in the city. All water passes through the tower. The tower holds 50,000 gallons of water. In case of fire, water is turned into the mains directly from the river.

A model of a filter was made by one of the boys. The accompanying diagrams were made by various members of the class.

Dan Schaffner worked out the following problem: "How does Emporia keep its people from wasting water?"

References:

Guick, "Town and City," pages 89 to 98.
 "Superintendent of water department," Emporia, Kan.

Dan Schaffner's discussion :

By investigations made, it has been found that there is great difference in the amount of water used by the different towns. It has also been found that in towns which use water meters, not nearly so much water is used, although the people say they use all the water they need for their homes, lawns, factories and public buildings. In towns where no meters are used the faucet is often left open during the winter nights to keep the pipes from freezing, and during the hot summer days to cool milk and butter. Many times broken faucets are not repaired as soon as they should be, and water is wasted. The city water department can easily tell when the mains are leaking if meters are used. Emporia uses water meters. Meters are good for Emporia because :

1. Each family uses all the water it needs but is careful about wasting it.
2. Each family pays for as much water as it uses and for no more.
3. The people and the water department keep the pipes, fixtures and mains repaired, so that water will not be wasted.

A model meter was loaned to Dan Schaffner by the superintendent of the water department. It was studied by the class. A trip was made to read water meters.

Problem: "To show how Emporia tries to prevent the spread of contagious diseases." Presented to the class by Lois Maxwell.

What I know about my problem :

1. People with a contagious disease are usually quarantined.
2. The health officer puts the quarantine sign on the house.
3. Different colored signs are put on the houses for different diseases.

What I want to know about my problem:

1. What is a contagious disease?
2. Is it worth while to quarantine?
3. How does quarantine keep diseases from spreading?
4. What is fumigation? Why is it necessary after a person has had a contagious disease?
5. Of what value is vaccination?
6. How does the health officer get his position?
7. What part do I have in preventing the spread of contagious diseases in Emporia?

References consulted:

- "Kansas State Board of Health," Bulletins.
- "American Red Cross, Elementary Hygiene and Home Care of the Sick."

Discussion as given by Lois Maxwell to the class:

"Contagious diseases are special diseases which are communicated between persons, either by direct contact or by means of an intermediate agent." When one member of a family has a contagious disease, other members of the family may go among the public and to their place of business where they might easily spread the disease. To prevent this from happening, laws have been made. By them, everyone suffering from a contagious disease must be quarantined to prevent people from visiting them and to keep the members of the family from going abroad among the people. It is necessary to quarantine houses in which there is a contagious disease to keep the disease from spreading.

Fumigation is the process of disinfecting articles such as furniture and clothing and things which are apt to have the disease germs on them. Fumigation must take place after every contagious disease. Sometimes the whole house is fumigated, and sometimes only the room in which the patient has lived.

The disinfectants used are chloride of lime, bichloride of mercury, quicklime and carbolic acid. Clothes may be disinfected by boiling. Sulphur and formaldehyde are generally used for fumigating.

Vaccination makes us immune from certain diseases. We can be vaccinated for smallpox.

The duties of the health officer of Emporia are many. He must appoint a man to collect the garbage, a man to inspect the places where our food comes from. When the health officer receives the notice of a contagious disease he must investigate the place where the sick person might have gotten it. Then he must see that the person or family is quarantined. After the person has died or recovered, he should see that the premises are properly disinfected. He must keep a record of all cases of contagious diseases, quarantines and fumigations made.

The health officer gets his position by being appointed by the mayor. He does not receive a salary but gets fees for various things which he does, as, for example, putting up quarantine signs.

There are many things which we can do to help in preventing contagious diseases in Emporia.

1. We should keep our bodies in good healthy condition so that we shall not be so apt to become sick.
2. We should observe all quarantines.
3. We should report any case of sickness which might be a contagious disease.
4. We can have plenty of good light and fresh air in our rooms.
5. We should call a doctor when we are sick, and especially if we are broken out with a rash.
6. We should see that our doors and windows are screened so that flies and mosquitoes cannot get into our houses.
7. We should not drink water unless we know that it

is pure. If we are not certain, we should boil the water at least twenty minutes.

8. We should not buy milk unless we are sure it comes from a dairy which lives up to the city milk ordinance.

9. We should not put natural ice in our drinking water, for it may have germs in it. Freezing does not kill germs.

10. We should not eat fruit or vegetables before they are cooked, unless they are thoroughly cleaned.

OBSERVATION AND SCORE CARDS

PROJECT-PROBLEM INSTRUCTION

Pupil Activities in the Recitation Period

	Score.
1. Ability of the pupils to work as a social group.....
2. Ability of the pupils in planning and outlining projects..
3. Ability of the pupils in raising and stating problems.....
4. Ability of the pupils to distribute the work of the project among themselves, which is to be done in the following study period.....
5. Ability of individual pupils to make reports to the class which they have previously worked out in the study period
6. Degree of attention and skill of the class in taking notes on the reports given by a pupil.....
7. Ability of the class to carry on fruitful discussions and ask questions about matters which are not clear to them
8. Ability of the class in giving criticisms intended to help the pupil reporting.....
9. Ability of the class in summarizing and drawing conclusions when all reports of problems or points related to the class project by individual pupils have been given..
10. Ability of the pupils in discovering their needs for skill or knowledge of certain technic required to work out the project or to solve the problem.....
11. Ability of the pupils in planning and in conducting drills or work in acquiring knowledge of technic.....
12. Ability of the pupils to respect leadership in the members of their class
13. Ability of individual pupils in being thoughtfully active throughout the recitation.....
14. Degree of good leadership developed in the recitation..
15. Ability of the pupils to coöperate freely, helpfully and orderly

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16. Ability of the pupils to criticize each other's work sympathetically and to receive criticisms in the right spirit

Teacher Activities in the Recitation Period

1. Skill in stimulating the class to originate and plan projects
2. Skill in leading pupils to sustain their original purpose until the project is finished.....
3. Skill in developing leadership among the pupils.....
4. Skill in leading the pupils to work as an orderly social group
5. Skill in stimulating the pupils to raise and state problems which must be solved before the project can be worked out
6. Skill in securing reports of problems or parts of projects by individual pupils to the class.....
7. Skill in stimulating pupils to become efficient critics of their own work
8. Skill in stimulating pupils to reorganize their work and make new investigations
9. Skill in stimulating the class to draw conclusions carefully
10. Skill in maintaining her position during the recitation as that of an umpire.....

Pupil Activities in the Supervised Study Period

1. Conditions favorable for allowing pupils to move about the room to find materials, to use the dictionary, maps, reference books; etc.
2. Degree of order and lack of confusion in using materials
3. Degree of absence of any distracting conditions which prevent the pupils from studying successfully.....
4. Ability of the pupils to work or study individually or in small groups of not more than two or three.....
5. Ability of individual pupils to work on problems or parts of projects which were stated and assigned by the class in the recitation
6. Ability of each pupil to write down his problem or part of the project and then proceed to outline it and think it through before reading or gathering information... ..
7. Ability of each pupil, after he has made his tentative or reading outline, to investigate its validity by reading from available sources of information, to prove or disprove what he has outlined and to determine what other facts are needed to complete his report.....
8. Ability of each pupil to revise his original outline in view of his reading or investigation.....
9. Ability of each pupil to sustain careful, purposeful thinking throughout the study period.....
10. Skill of each pupil in finding and using information or *materials*

11. Skill in writing good outlines and expositions of problems or parts of projects.....

Teacher Activities in the Supervised Study Period

1. Skill in securing active study application by the pupils during the study period.....
2. Skill in providing the pupils with facilities, such as materials and sources of information with which to work.....
3. Skill in stimulating the pupils to maintain their original purpose until results are secured.....
4. Skill in stimulating the pupils to think accurately in constructing the tentative outlines of their problems or parts of projects.....
5. Skill in stimulating the pupils to gather materials, observe experiments, or read for information required by their tentative outlines.....
6. Skill in stimulating the pupils to draw conclusions carefully.....
7. Skill in knowing accurately what each pupil has accomplished in the study period before the pupils recite again.....
8. Skill in giving suggestions which lead to good thinking, rather than acting as an authority, dictating the work to the pupils.....

Drill Projects

The following score cards apply to both drill work in the recitation and in the study period.

Score

Pupil Activities in Drill Projects.

1. Ability of the pupils to discover their own needs for drill.....
2. Their ability to set up definite standards of attainment.....
3. Their ability to plan ways and means of accomplishing the desired results of drill work.....
4. Their ability in sustaining their original purpose through repetition and practice until the desired results are secured.....
5. Their ability to use the results of drill work in working out projects and in solving problems.....

Teacher Activities in Drill Projects.

1. Skill of the teacher in discovering specific needs for drills.....
2. Her ability in deciding what types of drill are needed.....
3. Her ability in stimulating pupils.....
 - (a) To set up definite standards of attainment.....
 - (b) To set up practical standards of accuracy and speed which are high enough to require good effort but not so high as to discourage them.....
 - (c) To plan ways and means of accomplishing the desired results.....

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- (d) To sustain their original purpose through repetition and practice until the desired results are secured
- (e) To use the results of drill in working out projects and in solving problems
- 4. Her ability in securing repetition with maximum attention
- (a) By variation in the procedure
- (b) By placing a time limit.....
- (c) By using the incentive of emulation.....
- (d) By having each pupil compete with his own best record
- (e) By having each pupil measure his work with the results of standard tests.....
- (f) By the teacher keeping herself wide awake and attentive to the pupils' work.....
- 5. Her ability in limiting training when standards are reached
- 6. Her ability to recognize and minister to individual differences
- 7. Her ability in maintaining drill exercises until constancy (constancy in accuracy and speed) of performance is secured
- 8. Her ability in grading the pupils. Does she use the normal curve of distribution?.....

Appreciation Activities.

I. Esthetic Appreciation.

- 1. Ability of the teacher to appreciate that which she is trying to lead her pupils to appreciate.....
- 2. Her ability in helping the pupils to acquire the right kind of technic, at the right time, to increase their appreciation
- 3. Her ability in placing the children directly in contact with that which she hopes to have them appreciate.....
- 4. Her ability in stimulating the pupils' spontaneous expression of their appreciations.....
- 5. Her ability in providing opportunities for creative work as a means of heightening the pupils' appreciation.. ..

II. Intellectual Appreciation.

- 1. Her ability in stimulating the pupils to form specific purposes to guide their appreciation.....
- 2. Her ability in supplying the pupils with a sufficient groundwork of facts to comprehend the thought of the author, speaker, etc.
- 3. Her ability in leading the pupils to judge of the soundness and general worth of statements.....
- 4. Her ability in leading the pupils to understand the relationship of facts

SUGGESTIONS TO TEACHERS AND STUDENTS

1. This chapter attempts to develop a method of procedure in project-problem instruction. To what extent should the pupils learn the methods of their own work as outlined in the observation and score-cards of this chapter? Outline the essential points in the procedure of project-problem work which junior high-school pupils should know.

2. The following terms are used by different writers to describe the method described in this chapter: "Project instruction," "problem instruction," "problem-project instruction," and "project-problem instruction." What are the relative merits of each? Can you think of a better term than any of these?

3. To what extent, if at all, can the project be effectively used in appreciation lessons? Could the project be used as a method in securing appreciation which is predominantly intellectual rather than emotional? Illustrate.

4. Is it practicable to use the project in drill work? If so, how?

5. In a democratically organized society it is often necessary to act as directed without question, as well as to originate purposes and plans, to execute the plans and draw conclusions. In view of this fact, should the school arrange for both kinds of activities? If so, how should the school time of the pupils be divided between the two kinds of activities?

CHAPTER V

THE SENIOR HIGH SCHOOL ¹

THE instruction of the senior high school should be arranged and conducted to satisfy the various needs discovered in the junior high school. These needs restated for the senior high school may be summarized as follows: (1) The need for every student to become independent and efficient in his school work; (2) the need of all students for a common knowledge and training, including English composition, citizenship instruction, physical training and hygiene; (3) the need of preparing each student for his vocational or professional destination; and (4) the need of preparation and participation in recreational and avocational activities and for a general cultural development. What do these needs mean when translated into school practice?

The Need for Efficiency in School Work.—Rarely do high-school students become investigators while in school, or even have the attitude of investigators. The curiosity exhibited by pupils of the lower grades either no longer exists or is no longer concerned with school work. The stint method, combined with the ordinary schoolroom catechistic method, tends to deaden intellectual alertness. The rate of speed in pursuing a subject in the first year seems to be about the same as that of the last year of high school. The main facts of the outline of the subject are learned, discussed and reproduced upon formal examination. The class is usually led by the teacher, text-book or outline. The teacher is the task-master and the student is the task performer. The amount of real reflective thinking done by high-school students is probably very

¹See *Bibliography*, page 274.

small. No doubt there is value in a loose association of facts, in the formation of opinions on the basis of imagination, feeling, and suggestion, but knowledge thus acquired never gives mastery of the subject.

The primary duty of the teacher ought to be to arrange study and recitation conditions in such a way as to stimulate the maximum of independent activity and to make the student conscious of his own methods of study and finally of the best methods of study. How can a student learn to use effective methods of study without much waste of time and energy, unless he knows his methods and realizes the importance of improvement? To assist the student in problem-finding, problem-solving, and in becoming problem-minded should be the first duty of the teacher. When we squarely face the question of method we must conclude that the particular amount of any subject to be covered in a given time becomes relatively unimportant. Is the student improving in his study-methods, and in this improvement is he becoming aware of the instruments necessary for a still better control of the subject?

The project-problem method of instruction described for the junior high school should be used in the senior high school with the following modification: In the junior high school all pupils should be engaged in working projects, and in solving problems in all studies, in which this method may be used effectively, but as they enter the senior high school they should be thrown still more upon their own resources. The student should work projects and solve problems in fewer subjects in order that he may do larger and more difficult ones. He should be required to elect one branch, and he might be permitted to elect two, in which he must do more than the ordinary class requirements, and not only do more, but do the extra work in a different way from that which the ordi-

nary class procedure secures. Each student should have his project in the working of which he should show reasonable progress from day to day. Ordinarily each class, therefore, would be composed of students doing the extra work by the project-problem method and of those doing only the ordinary requirements. It will be seen that this two-standard class arrangement provides a most admirable social situation. The students doing the advanced work in any given class will always have an audience needing instruction, and they must give clear expositions of their projects to be understood. The audience will, also, serve as critics. Of course, the exposition of projects in any given class will occur periodically when the students are ready with their projects; otherwise the recitation will proceed in the ordinary way.

The nature of the projects varies with the subject, the students' interests, and the facilities for work. In physics, for example, it would not be necessary to return to the old heuristic idea that the fundamental laws of physics should be rediscovered, for the field of useful applications of the laws of physics is rich in project possibilities. Industrial and domestic chemistry, agricultural and horticultural botany, offer most enticing and practical opportunities for project work. In zoölogy the subject of pests, and in both zoölogy and botany as well as in chemistry, the subject of foods would furnish an abundance of projects. In foreign languages, projects in the history and the literature of the people as well as linguistic projects would help to bring these branches into a larger field of culture and usefulness. In history by throwing light on present-day social questions, either by the method of analogy between past and present events, or, in the case of recent history, by connecting past events with the present through direct causal relationships, would *vitalize both history and civics instruction*. In manual

or industrial training, projects in industrial history and economics connected with the manual projects would give social significance and make these subjects in a higher degree training for service.

It may be objected that the students are not ready for such work until they have had a complete course in the elementary principles of the subject. But it is not proposed that the high-school student should go beyond his depth in this work. The projects may grow in complexity as the foundational principles are mastered. However, the interest in the project would furnish a motive for mastering the principles. We ought not to expect the students to be master researchers, but we do want them to become independent thinkers in planning and working useful projects in at least one field. Of course, students working under this plan will experience difficulty, but difficulty is one essential condition of thinking. By this kind of work the students will be able to locate their difficulties, and if they accomplish this much, they will be doing more than is being done usually in the ordinary class recitation and study system.

By such a method each student would have an excellent opportunity to find himself during the high-school period. Under the present scheme each student is taught languages as if he were preparing to become a linguist, history as if he were to become an historian, and English as if he were to become a critic. The result is a "leveling-down" to mediocrity in all of the branches. There is no good reason why a student whose major interest is natural science should be required to learn all of the linguistic and grammatical points or the accompanying history and literature that might be important for a student whose major interest is language. Let the general requirements of any branch be set for those whose major interests are in other branches, and let the advanced re-

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Requirements be set for those who are doing the project work in their major subject. In this way students will be assisted in finding their aptitudes and dominant interests.

Those students doing the advanced work might organize themselves into groups for carrying on coöperative activities. Such organizations would be especially desirable in connection with the practical applications of the sciences. There should be successful organization of the regular activities, as well as of the so-called accessory activities of the school. It is reasonable to expect that students working under such a plan would do as good work in three subjects as they do now, and much better work in the fourth or major subject. The successful inauguration of this plan requires that high-school teachers and principals have an increasing knowledge and interest in educational psychology and the social life of the present; and finally it requires a better organization and *esprit de corps* of high-school teachers.

THE NEED FOR A COMMON KNOWLEDGE AND TRAINING IN ENGLISH COMPOSITION

1. **English Composition.**—English composition in the senior high school, like that of the junior high school, should be a service for all the other branches and activities of the curriculum. Its fundamental purpose should not be merely the communication of thought, but the communication of thought with which the student desires to affect the thinking and the activities of others. It should be an effective instrument in expressing his ideas to others. Although at least two years of English Composition, oral and written, should be prescribed in the senior high school, its projects and subject-matter should never be prescribed. *Not even types* of compositions known as narrations,

descriptions, debates, essays and orations should be prescribed. In other words, compositions as such should not be prescribed, but rather composition as a tool to be used as the needs of communication arise should be prescribed. Neither should certain kinds of composition be developed in anticipation of a vague possibility that sometime they may be needed as tools. The need should be definitely in prospect in the minds of the students before the tool is developed.

What composition forms, projects and subject-matter will be used will vary widely according to the composition needs of the classes. The composition classes should be just so many "clearing houses" for the exchange of the mutually worth-while ideas of their members. There may be a place for more formal composition courses as electives, but such courses should not be prescribed.

The standards of composition work in the senior high school should, of course, be more exacting than those of the junior high school. The first emphasis should always be placed upon the originality and the accuracy of the thought conveyed, and the second emphasis, upon the technic and the effectiveness of the expression.

2. School Magazine or Paper.—Every high school should have a magazine or paper, if possible, or at least a school column in the local paper, written and edited by the high-school English classes. A school paper is invaluable, (1) because it affords strong social motives for securing excellence in thought and in the technic of written composition, and (2) because it provides opportunities for a variety of composition forms, such as short stories, feature stories, news items, verse, jokes and advertisements.

A notable experiment in publishing a magazine in a small high school was recently conducted under the direction of Miss A. Bess Clark, principal of the High School

at Chisholm, Minn. The class in English III assumed the full responsibility for producing the magazine. The members of the class effected a complete organization for doing the work by organizing the class into departments. The department heads were chosen by the class from their own membership. The remaining members of the class served under the direction of these heads. "In fact, the business management, part of the type-setting, all of the composition, press-work, and assembling were done by English III alone." "Contributions from the school were sought for, encouraged, and secured, but all went through the several departments before acceptance."

According to Miss Clark one of the notable features of the students' short stories was their local color. The examples she gives have so much merit that a few of them are here reproduced. A bit of description taken from one of the short stories, called "The Chip-boy," follows:

Mike lit his carbide lamp and descended the twenty-foot ladders which led to the floor of the drift. Thence to his right he looked through the mouth of the drift into the outside world, but to his left far into the depths of the earth. From far in came the deep "thump" of picks striking the ore, and less oftener a heavy "thud" which blocked the ears and shook the ground. This was the blast.

One of the feature stories was entitled, "S. O. S. in Practice," and it runs as follows:

The thermometer registered 22 degrees below zero, yet he had no mittens. He couldn't have been more than five years old, yet I'm certain that he was his mother's errand boy, for what was that package on his sled? The common instinct of boyland drew a boy a little older to him.

"Wassa matter?" inquired the older.

"I'm cold," sobbed the other.

"Where's your mitts?"

"Left 'em home."

"Whyncha get 'em?"

"Oh, I live out ata location."

"Say, if you're so cold as that, I'll tell you what you kin do. *Come on in my room. My teacher won't care.*"

"Awright," the other answered. "Gee I wish it was Christmas. Ma promised me a pair of mitts. I spoiled the others playin' snowball."

"Serves you right," was the sage comment of the older. "I allus play shinney. That don't hurt your mitts."

The conversation was broken up at this point, for the older boy took the younger in. And yet some people insist that very little brotherly instinct exists in boys.

As a result of the interest in verse a few stanzas, entitled "The Foreigner," were written by a student of the class:

I wonder why the American always deigns to grin
When I say "da" for "the" and "tin" for "thin"?
I wonder why the American as though not kith and kin
Writes about the Bohunk and the Finn?
Writes about our language strange,
Writes about our customs alien,
Writes about our "company" homes upon "the Range"?
I wonder why the American stares at my wife and me
When we're down town ashopping or perchance a show to see?
I wonder why he always looks ('tis the same look I'll wager in
That stands out clearly on his face),
"That's a Bohunk or a Finn!"
Either a Bohunk or a Finn,
What difference is't to him,
We each came here in steerage, either a Bohunk or a Finn, etc.

The results of the school magazine venture are vividly described by Miss Clark: "We have been moving; we have found a vital purpose in every day's work. With a monthly publication to be issued never did we need to wonder, 'What's the use of this?' or, 'Where's the point of that?' We have studied authors and their work, not about them, for we have studied for inspiration to write something. Lecturers have been interviewed, other schools visited and written up, range coaches talked with and quoted in athletic articles, and every high-school activity viewed in the light of its worth as news and the possibility of putting that news into first-class literary form.

"In short, problem- or project-teaching in English III has eliminated all but vital study and pushed us to the liveliest, joyfullest, most endless English we have ever known." ²

3. **Speech.**—Too much emphasis cannot be placed on the movement now under way in the schools to purify speech. The movement should prove to be not only invaluable as a means of Americanizing foreigners, but, also, in clarifying and beautifying the speech of native-born Americans. The promoters of the speech-drive have rightly decided that the process of improving speech is essentially a social process, and accordingly various community organizations such as city clubs, social-centre clubs, and literary clubs are asked to join with the schools in the movement.

All efforts in the high schools to socialize instruction which require the classes to work as social groups rather than as aggregations of individuals, should improve the speech of students. The play groups of the school tend to develop fluency in speech, but not accurate and elegant speech. It remains for the classes engaged in the more serious work of the regular studies to dignify speech. In general, better thinking is essential to better speaking. Project-problem work in the recitation period requires the students to do their best thinking and, also, their best speaking. Their thinking must be free, but, also, purposeful, sustained, accurate and complete; and this kind of thinking requires in turn accurate and effective speech.

The dramatic classes of the high school, also, greatly aid in popularizing and in developing effective speech habits. This is especially true when the students dramatize plays which they have composed and written.

² The above quotations were taken from an article by Miss A. Bess Clark, entitled "Another Experiment in Problem Teaching," *English Journal*, April, 1919, pp. 218-224.

The problem, therefore, is to make pure speech more popular than slang and vulgar forms acquired on the street, at athletic games and in many homes. When once the group comes to take pride in having something worth while to say, the first necessary step has been taken to say something in a worth-while way.

Since Liberty Loan drives, Red Cross drives, health drives and numerous other drives have been successful, a speech drive is worth trying. The speech drive should differ from the other drives in being a continuous drive in the high schools.

4. Developing English Through Patriotic Service.—

One of the most successful, and certainly one of the largest, projects in English was carried out by the students of the Detroit high schools in connection with the Liberty Loans of 1917. It involved the combined activities of 15,000 students. The significant thing about this project is that it was not primarily a project in English, but one to help Detroit "go over the top" in raising the Liberty Loans. English was made an effective tool in the Liberty Loan drives. The purposes of the project, as set forth in a bulletin addressed to the high-school students, follow:

" 1. To make a strong effort through both oral and written speech to further the work of your high school in selling Liberty Bonds and to place your high school on record among the high schools of the city as leading in this enterprise.

" 2. To preserve complete records of all work done in this connection, and to present these in attractive and creditable form to the Head of the Department of English or to the Principal as the supreme achievement of your class this term.

" 3. To include in these records detailed minutes of class programs, reports upon speeches and discussions, book reviews and digests of magazine articles, copies of

advertisements and posters prepared by the class, copies of letters written with reference to the sale of Liberty Bonds, a final statement of results accomplished by the class and comments upon weaknesses that might well be corrected in the event of another such opportunity to aid in the fight against German autocracy."

A brief summary of the results of the Liberty Loan project, although stated in terms of Liberty Loan benefits, shows conclusively that a great deal of progress must have been made in the use of oral and written English.

"Complete records of all the work done in the English classes were preserved. The result is a collection of scrap-books and portfolios containing material of an intensely practical and patriotic nature ranging from salesmanship talks and sales letters to plans of reconstruction after this and other Liberty Loans have been oversubscribed and final victory achieved. The scrap-books contain clippings from newspapers, magazine articles, advertisements, cartoons and a collection of stray odds and ends reflecting the spirit of the Second Liberty Loan Campaign of 1917. These books are in many instances beautifully illuminated with original drawings and sketches by the students. The portfolios contain copies of patriotic speeches, selling talks, dialogues, sales letters, histories of the previous loan, and hundreds of original papers on novel and interesting phases of the Liberty Loan Campaign."³

5. Debating.—Debating is an important phase of oral composition. Like written composition it should be an efficient instrument of service in the various subjects and activities of the school. There is little need to go far afield for questions when so many vital ones arise in the classes and in the all-school activities.

³ The above quotations were taken from an article by C. C. Certain, entitled "Organizing for Patriotic Work," *English Journal*, March, 1918, pp. 179-186.

During recent years debating has become largely inter-scholastic. This has made it necessary to select one question for all schools within the conference or circuit. Accordingly the questions discussed have been superimposed upon the schools and have not grown out of their common needs. It is considered an extra-curricular activity like athletics. Like athletics, also, it has been promoted chiefly as a means of increasing school spirit, and, like the football team, only a few members of the school actively participate. The person in charge of the debating team is known as a coach. To be a successful coach he must turn out a winning team. The controlling motive of the interscholastic debating contest, like that of the football game, is the desire for the spectacle. The tendency to put into the mouths of youths the wisdom of oracles is prevalent. The points of the game are more uncertain than those of the football game, making the task of the referees difficult. The referees are referred to as honorable judges by both teams until the contest is finished, and then as most upright judges by the winners and as "bone-heads" by the losers. To afford a partial protection for the safe conduct of the judges to their homes a system of unsigned and sealed decisions has been devised. The unsigned votes of the judges are announced to the contending teams and the audience, while their duplicate votes are signed, sealed and sent by mail to the general secretary of the debating conference who lives in some distant city.

Usually whether the debate is within the school or between schools the affirmative and negative sides are chosen by lot. This method of choosing sides develops a species of modern sophistry that ought to be discouraged. Students should be allowed to choose the side of the question in agreement with their present convictions. The successful investigator in any field starts with his present convictions, with truth as his goal. He courageously

seeks the truth, but his first step does not consist in arbitrarily and indifferently denying his present belief. If he would find the truth he must start with the "punch" of his present set of mind, and then carefully work out the several bearings of his problem in relation to both furthering and opposing evidence. Only the man of conviction is capable of being broad-minded and tolerant. The man without conviction is not broad-minded, but simply indifferent. Education conceived as growth requires changes in beliefs after they have been seriously entertained and developed, and have been found wanting. Beliefs should not be made the pawns of chance, and our schools ought to substitute a system of debating more in harmony with the scientific method.

Some high schools have already worked out a system of debating similar to the following plan: Questions arise in connection with the various subjects and activities. The members of the class take sides according to their present convictions and the questions are debated more or less informally within the class group. When it is felt by the students and the teacher that their question is of sufficient importance to be discussed before the entire school, application is made to a committee of teachers and students to carry the debate before the whole school. If the committee grants permission the date for the event is scheduled for some general assembly period or for a debating period regularly provided. The first debate before the school is ordinarily given by the members of a single class. But it frequently happens that other classes after hearing the first debate become sufficiently interested in one side of the question or the other to challenge the side opposed to them in the first debate for a second debate on the same question. There are many *ways of arranging* for the debates, but the important

thing is that they shall not be forced, but shall arise in meeting actual needs of the school.

There are many interesting and vital questions arising in the class-work of the various subjects, questions arising in student organizations regarding policies and methods of conducting athletics, school citizenship standards, recreations, etc. There are many live questions connected with the development of the community which might be profitably discussed. The larger questions of "single tax," "initiative," "referendum, and recall," the "short ballot," the Monroe Doctrine in light of the Great War, will naturally arise in connection with the study of history and civics rather than be sent into the school from the outside.

This kind of debating requires no "honorable judges." When the debate is carried before the whole school the audience will be the judge. Occasionally to test the effect of a debate upon the audience their convictions on the question are polled before the debate and again after it has been finished; but after all a desire for a decision ought not to be the leading motive for debating. The desire to find the truth by sifting out and organizing evidence which will be effective with the audience ought to be the aim in debating as well as in all other serious activities of the school.

THE COMMON NEED FOR PHYSICAL TRAINING

Some phases of physical training should be prescribed for all students throughout the three years of the senior high school. The essential relationships of physical training to the other activities of the school were treated in connection with the junior high school and need not be repeated here. Physical training here, as in the junior high school, should include physical examination of all students, corrective gymnastics, personal hygiene with

still more emphasis upon sex hygiene, and athletics. The physical examination of the student should determine his activities in gymnastics and athletics. Physical defects are often made worse rather than remedied by taking part in gymnastics and athletics indiscriminately.

The evils of misdirected training and over-training result from a number of causes. As was pointed out in the discussion of physical training for junior high school students, all recreations, including physical training, are still regarded as accessory rather than regular activities of the school. A fine large gymnasium is usually constructed, athletic fields are prepared, and then the students are turned loose with the coaches. The single aim of the coaches is to win the football games, the baseball games and the track meets. During the winter months they fill in their time by giving floor work, apparatus work, and track work indiscriminately to all alike. The physical training work of the average high school, while usually developing the physically fit student, provides too many opportunities for injuring the unfit. On the other hand, the over-exertion required in long-distance runs and football games is frequently detrimental to the physically fit.

Rarely is instruction in personal hygiene required in connection with physical exercises, although the physical trainers are in a better position to give such instruction than any other teachers. In the first place, the sexes are segregated in physical training, making physical examinations easy, and, secondly, the physical trainer can bring home to the students in terms of their actual physical controls from day to day what is needed in sleep, exercise, diet, habits, etc., to meet the requirements of a normal physical life. He can demonstrate to them vividly the *evil effects* of indulging the sex instinct. In this con-

nection his services are far more valuable to the student than those of the physician because the latter is seldom consulted until the harm has been done.

When the "taboo" on physical training is finally and entirely raised we shall find its value second to that of no other work of the school. Our aims should be to give every student the physical basis for a vigorous life of service and to develop the personal moral habits which will carry him successfully through life. We must strive to realize these aims whether we turn out a winning team or, indeed, whether we have any interscholastic athletics.

THE NEED FOR A COMMON KNOWLEDGE OF CONTEMPORARY WORLD HISTORY

The needs of our citizenship demand a more intimate knowledge of contemporary world history. Either to avoid or to cope successfully with such social cataclysms as that of the World War, the rising generations must know vastly more about other peoples—their national ideals and ambitions, their education and religion, their industry and their customs, and their collective life generally. They must know more about international relationships and spheres of influence, and they must know more about the part America is taking and should take among the nations.

It is too early as yet to state specifically what subject-matter should be included in such a course. In fact, it should not be a course in history as such, but should be organized to meet the needs of citizen leadership. The history of the past in this course should be used only for the purpose of solving present problems. The best magazines of our own and other countries could be used as sources. A large number of books, pamphlets and reports dealing with the contemporary life of the various nations

are also available. Our national government for several years has published a considerable number of reports which furnish valuable source materials. The need for a one-unit course of this sort prescribed for all senior high school students is imperative. We shall only need to launch the course to find a large number of reliable and usable source materials forthcoming.

There are a few suitable books, however, such as "The Roots of the War," by Davis, written in easy style, which treat adequately the subject of international relationships since 1871. These books trace the rise of Prussia and the formation of the German Empire, the growth and development of the British Empire, the revolutions of the Balkan States, the international troubles over the Sick Man of Europe, the trials of the Third Republic, the consolidation of Italy, the discordant subjects of the Hapsburg Empire, the building of alliances, the Hague Peace Conference, the development of Pan-Germanism, the tearing-up of the Treaty of Berlin, the Balkan Wars, the Great War and the parts played by the various nations, including and properly emphasizing the part taken by the United States. The diplomatic history of the nations treated in these books should be supplemented by the current developments in peace negotiations, the League of Nations, discussions and ratifications of parliaments and the United States Senate.

In this course, as in all history courses studied primarily for citizenship values, the teacher should not simply build foundations and then stop, but should see that the foundations are used by the class in interpreting current social movements. An appreciation of the problems of reconstruction of society after the World War should be the central objective of the course in *Contemporary World History*.

THE NEED FOR A COMMON KNOWLEDGE OF AMERICAN
HISTORY

This course should start at the beginning of our history as a nation and extend down to the immediate present, with special emphasis upon our social, educational, economic, and industrial development since the Civil War. In the light of the preceding course in Contemporary World History, this course should also emphasize the international bearings of our intranational problems.

In the first place, the primary motive for the study of American history should be the civic motive. To this end much more emphasis should be placed upon the social and industrial development of the United States since 1870. Every step of the course should be linked with the important problems of the present. The course should develop a higher degree of intelligence regarding the forces which make for the well-being of our people.

In the second place, the emphasis of both our texts and teaching must be such as to support as strongly as possible the maintenance, improvement and perpetuation of American ideals and institutions. We must avoid even the possibility of teaching the minor events of history such as battles, military campaigns, and military heroes as comparable in importance with such great historical facts as the Declaration of Independence, the Constitutional Convention, the freeing of the slaves, the maintenance of the Union, industrial evolution and the organization of capital and labor since 1870, the World War, and so on.

In the third place, where necessary, our history textbooks must be rewritten in the interest of presenting adequately and fairly the truth regarding all questions and issues discussed. The account at all points must be as fair, so far as is possible with present knowledge,

to other nations involved, as to our own. The creation of unjustifiable prejudices in favor of or against England, France, Mexico, Spain, or other nations, must be avoided. The story of the Civil War must be so presented as to represent truly and fairly the objects and motives as well as the successes and failures of both sides to the conflict.

From this time forward we shall certainly modify our attack in the matter of emphasis in such fashion as to teach more adequately and thoroughly than in the past the peculiar and characteristic genius of American institutions and the permanent and outstanding assets of our democracy. Not only must we present these matters positively as in the past, showing what democracy's assets are (representative government, trial by jury, no taxation without representation, free speech, a free press, habeas corpus, the right of petition, the right of protest, the right of public assembly, etc.) and how we came by them; but also negatively, that the advantages of democracy's institutions may be impressed more *forcibly* when studied in contrast with autocracy's governmental institutions and with the limited privileges and rights of people living under the same.

Even our positive attack needs to be enlivened and vitalized. It has lacked enthusiasm and has had little effect upon our students except to equip them with certain academic information, in which they have merely a passive interest. Our students have not gone from their study of the growth and development of American institutions tingling with enthusiasm over our priceless heritage and spurred on with high ambitions for the advancement and perpetuation of our democratic institutions by reason of their growing appreciation. Rather, they have gone from their study with an attitude suggesting that they felt the fine freedom and privileges under *our democracy* were forever guaranteed—that since they

were enjoying them without themselves having had to sacrifice for them, they had always existed so, and would continue so forever. Our positive attack must be so improved and enriched as to change this passive, indifferent attitude into a virile, aggressive appreciation of our great heritage, and into a positive determination not only not to countenance or tolerate any encroachment upon our democratic institutions, but to lose no opportunity to work for their constant strengthening and improvement.

Nor must we be satisfied with this improved positive attack. We must enrich the effects it may be expected to produce by showing the disadvantages, the hampering effects of autocratic governments. In teaching the causes of America's entrance into the Great War, our students must understand clearly that we became a participant not merely to protect our property and our lives and to preserve our honor, but to prevent the substitution by German force of autocratic forms of government for our free, democratic institutions. In this connection our students must understand concretely such matters as Germany's mock system of representative government, her unequal franchise system, in which the influence a citizen's ballot exercises is based upon his financial standing, her social caste system, with particular emphasis upon the haughty arrogance and insulting cruelty of the military class, and especially her teachings, ideals, and philosophy, which foster and fasten upon her citizens the mediæval governmental system under which they live.

Only by this double attack may we expect to succeed in equipping the American people so that they may know and feel in their inmost souls that our democracy is a pearl without price. Such a basis for decision and action should in any time of danger cause our citizens to rise as one man to defend with their backs to the wall any encroachment upon our free institutions and the rights guaranteed

thereby. Such a response in a democracy not being the result of blind automatic obedience to duty, as in an autocracy, but a response based upon well-founded appreciations in reference to American institutions and deep-seated prejudices against the hampering effects of autocratic governments, would launch a defense with such speed and momentum and it would be supported throughout by such lofty humanitarian motives as to render our efforts irresistible.

As has been pointed out above, our need is such texts and teaching as will guarantee greater and truer intelligence as a basis for action. We must teach the American youth the foundations of their liberty and acquaint them with the storms which for centuries raged around the building of those foundations, and familiarize them with the sacrifice and suffering incident to their establishment. With such a background of information, our citizens would appreciate more fully the stirring words of Washington when he said: "American freedom is at stake; it seems highly necessary that something should be done to avert the stroke and maintain the liberty which we derived from our ancestors." Not until our youth are taught the whole story of the struggle for free institutions under which we live will it be appreciated that it was by reason of the victories won through centuries of warfare and struggle that the spirit of freedom was alive in the hearts of American colonies sufficiently that they resented the tyranny of George III and Parliament.

Our citizens must generally realize that by the winning of our independence and by succeeding struggles our country was made safe for democracy; by the promulgation of the Monroe Doctrine in 1823 and its successful defense since, the American continents were made safe for democracy. Since the conclusion of the Great War, we are definitely able to say that by reason

of the united efforts of the democracies of the world against the combined forces of the autocratic governments of the world, the entire world has been made safe for democracy. Our teaching must be so improved that our oncoming citizens shall become intimately acquainted with the dangerous steps by which, since the settlement of the Western Hemisphere and during a period of more than a thousand years preceding in Europe, liberty-loving people advanced to our present freedom. Upon the basis of such thoroughly adequate training, and only so, can we hope to establish that background of knowledge essential to those appreciations and prejudices which may be relied upon to produce those decisions and that action which will guarantee both the safety and improvement of American democratic institutions.

With this background of study and appreciation the next generation should be better able than the present to solve the pressing problems of social justice. The next generation will understand better than our own how social reforms may be accomplished swiftly and effectively through the agencies of constituted government.

THE COMMON NEED FOR CIVIC INSTRUCTION

This course should include the most important economic, industrial, governmental and social problems of the present. The whole question of citizenship is so important that it deserves careful consideration before proposing a definite course of study in civics.

If society is to realize the moral idea, it is plain that we must have a deeper and more extensive knowledge of present social affairs. The people generally must have a better grasp of the significance of their social activities. The problem is a difficult one, first, because of the complexity of modern society, and, second, because of the unorganized condition of social activities. But the kind

of education needed means precisely the mastery and simplification of the modern social complexity and the organization and control of social activities for ethical ends, and we have no right to shrink from the task because it is difficult. This kind of education can never be secured as a by-product from the study of many courses rich in many things except the institutions and forces of modern society. For a people whose golden age is yet to come, whose ideals are projected into the future, a system which omits or merely apologizes for present social conditions loses one great opportunity for moral instruction.

Moral insights are developed through present needs and motives. Instruction which does not arouse motives of social utility cannot have any direct effect upon conduct needed by society. Studies may result in forming habits of industry, quick and accurate thinking, acuteness of perception, vividness of imagination and memory, and yet leave motives of ethical conduct untouched. All of these disciplinary values become exceedingly important, however, in giving efficiency to ethical conduct, or, in other words, in realizing right motives in action. On the other hand, these disciplines may become equally effective in realizing wrong motives. To reform the child by establishing habits and attitudes, of course, is essential in the moral growth of the child, but present adjustments cannot be made on this basis alone. "Ultimate moral motives and forces are nothing more or less than social intelligence—the power of observing and comprehending social situations and social power—trained capacities of control—at work in the service of social interests and aims."⁴ Nothing less than the possession of the knowledge and spirit of society as it now exists can give birth

⁴Dewey, "Moral Principles of Education," p. 43.

to effective motives—motives which will in turn give direction to habits and attitudes.

Negatively considered, all subjects viewed and studied as ends rather than as means are moral agencies. When my attention is occupied with the beauties of literature, with the theories of mathematics, with the engrossing interests of history, with the generalizations of science and philosophy, it cannot be directed at the same time to the satisfaction of my lower impulses and instincts. Truly the sum total of a man's interests makes up his life. But one is only negatively virtuous who thus escapes from evil. It is only when the mind reflects upon subjects as means to an ulterior value that positive moral progress may be made. Whether progress or retrogression is actually accomplished depends upon the nature and the utility of that value. What we need is a race of educated men and women who can appreciate present values as well as the values of the past. We shall always need the values of the past to furnish a perspective for present values, but to ignore present values or to expect them to be realized incidentally, without studying the content inseparably connected with them, is to exist in the present and live in the past. The child appreciates certain values, which seem to him to satisfy his individual needs. Moral instruction consists in elevating the child from his own plane of needs and values to the plane of society's needs and values.

The great problem is to point the boys and girls to the tangible and at the same time to the good in the present. The desire for a career is fundamental in the life of every boy. This career and the life surrounding this career should be idealized before they are actualized. What can be done to realize this end? The lack of social knowledge and insight is not limited to the so-called uneducated, but exists among the educated as well. Many

of the graduates of high schools, and even colleges, are apparently as helpless in this field as men whose education has been limited to the elementary school. Judge Lindsey has shown us how subtle and insinuating are the ways of the "beast." Good men apparently may innocently follow the beast almost to his den without becoming aware of the danger of their course. We see evidences on every hand of the need of social control. The political bosses and their henchmen rob the people for a number of years, and then a new set of officials rides into power upon a strong tide of social feeling. Many of the officials of the new régime naturally prove inefficient; political feeling dies down; a state of general apathy ensues; and it is easy for the old professional guard to find their way into camp again. Municipal leagues and good government clubs are organized; some good work is done, and then too late it is discovered that their Moses is losing them in the wilderness. The political shyster for a time keeps the company of good people, makes himself prominent in organizations of social service. He is found at church occupying a front pew, and sometimes he becomes the superintendent of a Sunday school. He is a veritable Doctor Jekyll and Mr. Hyde. Occasionally the church succeeds in proving the identity of Doctor Jekyll and his name is erased from its membership roll. We can never effectually discover such men as this until we are trained to distinguish the real values of men from their fictitious values represented by their oral professions and social affiliations. Men of strong intellect and great moral worth possessing a rare insight in their specializations and a high degree of control in their vocations are often exceedingly childish in their civic and political judgments. We need a race of professional politicians, not a race of professional office-seekers. We can never hope to solve the great problems

of the day successfully without systematically studying modern life.

The political developments of the last century have shown a constantly increasing effectiveness of public opinion in directing the affairs of our nation. Politicians good and bad have been quick in "putting their ears to the ground," for the man who does not readily read the signs of the times can neither successfully serve nor rob his country. Sinners swim in the current of public opinion as well as the righteous servants of the people. They often swim more successfully in the eddies caused by conflicting currents. "The divisions and cross-purposes of decent people give the sinner his chance to get away."⁵ Social progress in a democracy depends upon the efficacy of public opinion as well as the individual virtues of its citizens. Why should not the instruction of the schools seek to make a point of contact with public opinion? Professor Ross correctly diagnoses the case when he says: "Public opinion has become so mighty a regulator of conduct, not because it has grown wiser, but because of the greater ease of ascertaining, focussing, and directing it. There is nothing to indicate a gain in intelligence at all answering to its enlargement of authority."⁶ The politician ascertains public opinion and strives to focus and direct it. The educator's problem is to attempt to make intelligence measure up to the enlargement of the authority of public opinion—not intelligence in general, but the intelligence which constitutes the ground for present-day civic and social judgments. "To-day, as in Hosea's time, the people are destroyed for lack of knowledge."⁷ If the civic insights of the people could equal their civic intentions, the most vexing social evils would

⁵ Ross, "Sin and Society," p. 87.

⁶ *Ibid.*, p. 25.

⁷ *Ibid.*, p. 15.

be eliminated in a generation. So much of moral effect and moral capacity go to waste because men do not clearly see the opportunities for social service. "The evils of the present industrial and political situation, on the ethical side, are not due so much to actual perverseness on the part of the individuals concerned nor to mere ignorance of what constitutes the ordinary virtues (such as honesty, industry, purity, etc.) as to inability to appreciate the social environment in which we live. It is tremendously complex and confused. Only a mind trained to grasp social situations, and to reduce them to their simpler and typical elements, can get sufficient hold on the realities of this life to see what sort of action, critical and constructive, it really demands."⁸ The only remedy for this defect is more social education. It is said that the business of education is to follow and not lead in the progress of society. The correctness of this statement may be admitted, but one cannot find in it any reason why education should follow so far behind.

We study United States history, but rarely advance the class beyond the close of the Civil War and the problems of the Reconstruction Period. Since the Civil War this country has experienced a social and industrial revolution. This is left untouched in the instruction of our schools. The study of civics too often consists in a rather formal analysis of the Constitution. The heroes of America held up to the children are great military men, statesmen, a few inventors, and authors. These are all good, and will always be potent forces in forming American ideals, but the list should be revised. Nearly all of these lived more than fifty years ago. Are there no living men and women whose deeds are worth considering? Are there no services being rendered in industry, charity, education, religion, professions, and labor

⁸Dewey, "Ethical Principles Underlying Education," p. 23.

worthy of study in our schools? The endeavors and achievements of the strong men and women of our time, who are working quietly yet heroically, very seldom find recognition in the daily newspapers. It is the business of the school to find these men and women and use their lives, endeavors, and achievements in the moral instruction of the young. This kind of instruction should not in any way take the place of the presentation of the great characters of history and religion, including Christ himself, but it should serve as a means of mediation between these great characters and the life of the child in the present.

If the religion of Christ is really accomplishing the salvation of the human race, and we believe that it is, then why should we forever return to ancient history for our saints? Our newspapers exploit the evil and the sensational in modern life. Our best magazines are engaged in a campaign of muck-raking. Let the muck-raking go on, but let us not forget that unless the boys and girls are introduced to the good in modern life, they will be poorly prepared to assume its responsibilities. Teach the life of Jesus, the apostles, and the saints of old: "enthuse" the students with fundamental religious emotions and high resolves, and then make this instruction efficient by showing definitely how the spirit of Christ is working through the lives and the activities of men and women now laboring for the salvation of humanity. Is there any better way to inspire and to enlist the moral and spiritual service of the rising generation? Every ethical occupation, calling, or profession, has its opportunities for service as yet unrealized by the most of men. What are these opportunities? How are some men and women taking advantage of them? Teach the personal and the civic ideals of the Bible to the children, but bring these ideals home to them by thoroughly instructing them

in the science and the art of good living to-day. Empty precepts and abstract ethical terminology will not suffice. We must reveal history in its making to the child if he is to be successful in turn in making good history.

What can the school do to improve social morality? In the first place, instructors must adapt and utilize the courses of study as they now stand to the end of moral instruction, and, in the second place, other more pertinent subject-matter for moral instruction must be introduced and adapted to the needs of the students. The scope of this section is limited to the second line of reform. Teachers who are dependent upon textbooks now being used in the schools cannot hope to accomplish much in solving the problem. What present social content can be used in instruction? How can the lives of worthy men and women be used in connection with such instruction? Is there any valid reason why boys and girls of our high schools should not study such great problems in their civics courses as the slums, the sweating system, tenements, individual and social degeneracy, poverty, the unemployed and homeless poor, dependent children, immigration, the tramp problem, criminal classes, prison reform, institutions of charities and corrections, the liquor problem, the factory system, labor unions, the organization of capital, social settlements, private and public charities, religious organizations, the juvenile court, municipal government, industrial education, private and public education, political parties, philanthropy, and institutional church, etc.?

The writer is not unaware of several objections that will be made to such a course of study. The first objection will be that the program of studies suggested emphasizes the dark side of life. Superficially viewed, this contention seems true, but the emphasis will not be on a *hopeless* darkness. The high-school age is the period

preparatory to full citizenship. This is the age when the social impulses of sympathy, sex, love, and heroism well up persistently in the lives of young men and women. It is the period of great resolves and exalted ideals. High ideals come in this period, if ever. Why should these resolves and ideals be emasculated by monopolizing the youth's school time on mental pabulum which has little if any connection with the great problems which are stirring the souls of the truly great men and women of our time? Does any one know a social reformer or a public-spirited citizen who looks on the dark side of life or who is deteriorating to the plane of incurable pessimism?

A second objection will be that social prejudices are too strong to treat of topics so vital to the life of present-day society. But this objection really has no cogency, for all of the above topics and many others which might be added to the list have a common point of view in the enlightened public opinion of every community. Enlightened public opinion is the only local force by which the teacher should be guided in presenting such a course. The teacher must avoid any tendency to worship local or national heroes now living. Let men have due credit for their good deeds, but do not attempt to surround them with a halo. In presenting modern social content the emphasis should be placed upon the study of the results of service and the opportunities for service. The real teacher need not be afraid. There is no place for the dogmatizing type of teacher in this work. Its purpose must always be remedial for the future rather than negatively critical of the present. Its spirit should be that of increasing sincerity and breadth of sympathy for humanity, an increasing sense of our social interdependence and obligations, and an increasing desire for manly and womanly service. It is difficult to understand

how prejudices could operate to the detriment of such instruction.

The third objection will be that the content is too difficult for pupils of high-school age, but investigation shows this to be untrue. The subjects above indicated are in themselves not more difficult of comprehension than the history and civics now being taught in the high schools. Of course, there are some phases of some of the subjects that could not be grasped by the average high-school student, even in the senior year, but this statement is equally true of other subjects of the present curriculum. The field is broad and rich, and there is ample opportunity for the appropriate selection of subject-matter. It will not be nearly so difficult to find social problems sufficiently simple as it will to find time enough to study even the most important ones.

The fourth objection will be that books and literature on these topics are unavailable. If it is meant that there are few textbooks treating these topics designed for use in the high schools, then the objection is true. But as a matter of fact there is an abundance of books, monographs, lectures, and magazine articles of a high order which may be selected and adapted to high-school work.

Still another objection will be that there is no time for such work in the high-school course. This objection must be met purely on the ground of relative values. If it is not clear that this work is more valuable than some of the work given in the high school, then of course there is no place or time for it, for the course of each student is sufficiently packed as it is.

When the soundness of the arguments for a more socialized course for all students has been admitted by laymen, still custom, tradition, and lethargy of the teaching craft, reinforced by the doctrine of formal discipline, *will bar the road* to progress. The value of a subject does

not consist in its "fixed inner structure but in its function—in its power to start and direct significant inquiry and reflection."⁹ Any one who has taught high-school classes in history and civics knows how keenly interested his students are in the problems of the present. The teacher who brings his subject up to date feels that he is grappling with questions of vital importance to himself and humanity, and he swings himself into his tasks with new zeal and increasing energy. Teachers fail to become great because they are not permitted to engage in the solutions of the great problems of the day. As long as instruction is limited to the reproduction of the fixed sciences or to the investigation of subjects which have only a remote relationship to the present life of the race, so long will teachers continue to mark time in the march of progress. It would be a good discipline for teachers if they were required to think out a course of study without depending upon the safe and narrow paths of the textbooks. While we are emphasizing the values of the so-called fundamental branches in the schools, the problems of the present are being solved by society for good or ill through the medium of a relatively unenlightened public opinion. The historians are strenuously trying to discover the hidden meanings of events which were passed into history through the medium of perhaps a still less enlightened public opinion. The results of this work are sifted and diluted and made into textbooks. If school historians should come to the point of throwing overboard a great many of the historical records as unworthy of occupying the best years of all students' time, except those engaged in historical research, and should turn their attention to the problem of selecting those parts of history that really are significant in the life of society to-day, then history would begin to yield its real service. "His-

⁹ Dewey, "How We Think," p. 39.

tory is vital or dead to the child according as it is or is not presented from the sociological standpoint. When treated simply as a record of what has passed and gone, it must be mechanical because the past, as the past, is remote. Simply as the past there is no motive for attending to it. The ethical value of history teaching will be measured by the extent to which past events are made the means of understanding the present—affording insight into what makes up the structure and workings of society to-day.”¹⁰

The spirit of the program of instruction here contemplated does not underestimate the value of the study of the great masterpieces and events of the past, but, on the contrary, history is given a new function, the function of social service. Ruskin has shown us how art is to be linked with the present for the service of society. This conception of studies is democratic.¹¹ Education is a service and not an accomplishment which separates its possessor from his fellow-men. That kind of education which seeks to get a “corner” on culture and refinement, and only incidentally to serve, never can become a strong force in the ethics of our nation.

We must expand our conception of utility and elevate it from its present vulgar plane of existence. We live in an industrial age, and all institutions are dominated by the industrial spirit and we cannot help it. The question is, What shall we do about it? We culturalites usually do one of two things: Either we allow the utilitarians to drag us to their level or we withdraw and organize a monastic set of our own. The result is that both kinds of instruction tend to become artificial abstractions. Why cannot we admit that the utility men have a case, and

¹⁰ Dewey, “Moral Principles of Education,” p. 30.

¹¹ Ruskin, “Lectures on Art,” secs. 116, 124, and in many other lectures.

help them to give scope and meaning to their subjects by making vital connections between the cultural and the industrial interests? Why should not the boys engaged in industrial training associate their labor with its industrial and social significance? Is not industrial history as cultural as the history of royal families and the escapades of princes? Would it not be well for the sons of the workers and of the capitalists alike to gather during the school period some sane ideas on the history of trade unions and the organization of capital? Then in later years they could at least be held morally responsible for their acts. The effect of such instruction in providing motives, in creating a consciousness of needs, in arousing feeling, in preforming the mind with large and noble attitudes, and in stimulating the will cannot be overestimated. "Unless there is a prompt and almost instinctive sensitiveness to conditions to the ends and interests of others the intellectual side of judgment will not have proper material to work upon. Just as the material of knowledge is supplied through the senses, so the material of ethical knowledge is supplied by emotional responsiveness."¹² Nothing so arouses the feelings and stimulates the will as the consciousness of the possibilities of personal participation, unless it may be the participation itself, and the youth's consciousness of the possibilities of personal participation will be most effectively secured by studying the situation into which he must shortly enter. Thus the two essential conditions of moral instruction—stimulus for the will and exercise for the moral judgment—are amply provided for by instruction in modern social content.

SUGGESTIONS TO TEACHERS AND STUDENTS

1. What other means than those proposed in this chapter can you suggest for increasing the efficiency of high-school students in their work? Have any plans other than the ordinary ones of limit-

¹² Dewey, "Moral Principles of Education," p. 62.

ing the social activities of students, increasing their hours of study, supervision of study, the awarding of scholarships, etc., been tried? With what results.

2. According to Doctor Snedden, the teacher of literature in the high school should not, also, be the teacher of composition. What are the arguments for and against such a combination of work? (See Snedden, "Problems of Secondary Education," Chapter XX.) What other ways of motivating composition work than those described in this chapter have been tried successfully? What other ways can you suggest? How should the study of formal rhetoric be used, if at all, in connection with oral and written composition?

3. If it is true that athletics should be considered a regular rather than an accessory activity of the high school, then what plan of administering athletics would you suggest? If it is true that in a majority of cases a student's work in his so-called academic studies suffers while he is in training during the foot-ball season, then what should be done about it? In your judgment what are the merits of the argument which proposes to abolish interscholastic athletics and to substitute intra-scholastic athletics? Should the athletic coaches be subject to the direction of competent physical directors?

5. What other plans than those treated in this chapter for developing effective citizenship instruction in the senior high school are being tried? Outline a course in contemporary world history. Outline a course in American history showing how past events and movements are to be functionally related to the present. What economic, industrial, vocational, and social problems should be studied in the civics course?

SURVEYS OF HIGH SCHOOLS

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CHAPTER VI

THE NEED FOR VOCATIONAL TRAINING AND ITS RELATION TO OTHER HIGH-SCHOOL ACTIVITIES

Much is being said and written on the introduction of various forms of vocational instruction, but we are coming to see that vocational education means much more than the introduction of vocational schools or departments, which merely parallel the traditional courses of the high schools. The introduction of vocational instruction in the high school will require a redirection of much of the instruction now given. It does not require a prolonged argument to show what will be gained by successfully uniting vocational with academic instruction in the same high school. Either side of high school instruction would be sterilized, if the other were absent. The vocational students need the opportunity to choose supporting lines of information which the cosmopolitan high school alone can offer. On the other hand, the students pursuing academic lines need the opportunity of electing vocational branches even if taken only for avocational purposes. Both classes of students need instruction in the social branches which will serve as a central core of constants for all.

The Dual System Versus the Unit System.—The administration of the Smith-Hughes Act requires a separation of vocational and academic instruction. Students preparing for college or pursuing a general course in the high school are not permitted to elect any of the subjects in the vocational department or school, although students pursuing the vocational courses may elect non-vocational subjects. It will be seen that the separation

of vocational from academic instruction is only partial. When vocational instruction is thoroughly established the unit-system of high-school instruction should be effected.

Under the separate vocational school system the tendency is to provide the minimum of supporting branches, such as hygiene, community civics, possibly United States history, English composition, arithmetic, writing and spelling. On the other hand, the manual training in the non-vocational high schools under the separate system of vocational instruction would become less efficient than it is at present because the student desiring vocational instruction would attend the vocational school. The result would be that the student preparing for college would lose the opportunity for securing even a good imitation of industrial experience. Finally, the separate system, owing to the necessity for duplication of plants, much apparatus and machinery, supporting subjects and teaching force would be much more expensive in the smaller cities and towns. Notwithstanding the fact that a few states have established rather elaborate dual systems of vocational education, nevertheless some form of the unit system seems to be more generally favored, especially in the Central and Western States.

A Survey of the Occupations of a Small City.—The procedure frequently followed, which we recommend in developing vocational education in the smaller cities and towns, is concretely illustrated in the survey of the vocational needs in relation to the high-school facilities of a city of about 30,000 population. The purpose of the illustration is to set forth a method which communities should follow in developing their educational program. The community used for illustration possesses most of the characteristics of the ordinary small city and, also, a number of unusual characteristics, which make it an exacting

test of the method proposed for installing and conducting a system of vocational education.

A survey of the occupations in this city shows that the existing branches in the high schools may be so modified and extended as to give training for nearly all of them. By consulting the accompanying diagram the reader will be assisted in understanding how the various departments of the high schools are to be expanded in meeting the needs of the several vocations represented. For example, in addition to the training given in book-keeping, stenography, commercial arithmetic, commercial law, etc., which fit the student for general office work, it would be necessary to introduce courses in salesmanship and business management. These would require the services of a first-class salesman with experience in selling several kinds of goods. An intelligent man or woman of such experience could be trained to teach much more quickly and efficiently than the ordinary teacher could be given the necessary business experience. Again, this division of the commercial department would amount to little unless it were given as a part-time course. Classes of boys and girls between fourteen and eighteen years of age who are engaged in salesmanship would be formed and given instruction for, say, not less than six hours per week. Classes of men and women above eighteen years of age who are engaged in salesmanship would be formed and given instruction at least three evenings a week. Full-time instruction for general office work would, of course, be successful as it is at present, but part-time courses could well be given, also, for those who are engaged in office work. However, a certain amount of general commercial training is usually needed before the actual work is taken up.

By tracing the lines on the diagram, connecting the *commercial* department with the various occupations, it

will be seen how very important this department is in organizing a system of vocational education in this city. Every enterprise which manufactures, sells, or buys commodities, requires some phase of commercial training.

Manual training in this city may be expanded into several different phases of vocational training. By giving work in wood, metals, and simple machinery, pupils could be prepared to pursue any one of several different vocations on the part-time plan. There are at present thirty or more enterprises which would be benefited by vocationalizing the manual-training department. Here, as in the salesmanship division of the commercial department, the part-time plan seems to be the only practical plan of operation. It would be impossible to bring the various kinds of mechanical operations performed in these enterprises or industries into the schools. However, the manual-training department could furnish the technical knowledge required. The manual-training teachers could teach the fundamental operations of the industries and give some actual practice in the school. For example, a simple machine-shop could be installed. Machine-shop training prepares workers for the departments requiring skill in a large number of industries. The second most important division of manual training is the carpentry or wood-working shop. As vocational education develops, however, more of the actual work will be done in the industries themselves, and the manual-training department will furnish the technical information required.

The manual-training teacher should be an extension teacher. He should go out to the industries to study not only the operations performed, but also the operations needed. He should observe boys at their work. Questions of economy in operations; strength and quality of materials; service rendered by the manufactured article; strength, mechanical advantages, and capacity of

machines used, etc., should arise. The same principle applies here as in the salesmanship division of the commercial department in selecting the teachers. They should be highly trained and intelligent mechanics with broad experience and capable of rapid development as mechanics and teachers.

The household arts department should be divided into at least three main phases of vocational education: first, that which deals with food and nutrition, and trains in the planning, cooking, and serving of meals, diet for the sick, etc.; second, that which deals with textiles and clothing, preparing for textile work, sewing, millinery, laundry, dyeing, etc.; the third phase deals with household management, and prepares for work in the home, hotels and restaurants. On the other hand, dressmakers, tailors, milliners, and launderers need just such technical training as could be given in the work now offered with a little modification in the method of teaching.

The work in drawing by placing the emphasis of instruction upon design would help to prepare costume designers, milliners, interior decorators, wallpaper and textile designers. Drawing is fundamental in a large number of occupations. It is needed by the stone-cutter, the ornamental plasterer, the wood-carver, the designer and maker of furniture and light fixtures, and the house-builder. It is needed by those who are to become draftsmen in architects' offices, engineers' offices, in commercial advertising companies, and by illustrators in newspaper work.

At the time the survey was made (1915) there was no agricultural instruction in the high schools of this city, yet had it been given in connection with the market gardens, bulb farms, and dairies, it would have been important, and, more so, as the city's population increased and as the local market developed.

All of the above departments should be organized into one big department to be known as the Vocational Department. Outside of the Vocational Department there should be a well-organized group of supporting branches modified to meet the needs of the vocational students. Very important among these would be the hygiene of the vocations, as well as personal and social hygiene, chemistry adapted to the needs of home economics and several of the manufacturing industries; physics related to the work with machines and electrical construction. The course in history and civics for vocational students should, of course, be profoundly modified. There should be practical courses in economics and social problems introduced. Very important modifications should be made in such branches as botany, zoölogy, and physiology. English composition should utilize the vocational motive and content.

It is undoubtedly true that there are many vocational needs in this city which cannot be satisfied by the existing departments or branches, or by any extension or modification of the same, but to fail to use the equipment and resources of the high schools as they now exist would be economic as well as educational waste.

There are two characteristics of the occupational situation in this city which seem to offer difficulties in organizing a system of vocational instruction. First, the industries which employ large numbers of workers require adult male laborers only, as, for example, the saw-mills, planing mills, sash and door factories, wood-pipe factory and concrete works. The large fishing canneries and can factories constitute exceptions. There could be no day part-time system organized in connection with the industries which do not employ boys or girls of the high-school age. While the canneries employ boys and girls it is only for the can-

ning seasons, and there is little or no opportunity for future advancement in this seasonal work which is, also, largely unskilled work. In so far as this is true, this industry may be classed among the "blind-alley" occupations for boys and girls. Therefore, these boys and girls should be trained as soon as possible for some other occupation which offers future advancement. Although from twelve to fifteen per cent. of the positions in this industry require skill and offer fairly steady employment, very few boys and no girls of high-school age are desired in this part of the work. The second characteristic of the occupational situation in this city consists in the fact that a very large percentage of the business and industry is conducted by one, two, or three persons, *i.e.*, enterprises in which the owners do all of their own work.

These difficulties, however, are not insuperable. Let us consider them in order. First, there are many opportunities for part-time work for boys in the various smaller industries of the city which train to some extent for future positions requiring skill in any kind of mill, cannery, or can factory, wood-pipe factory, concrete works, etc. Machine-shop training is fundamental in preparing for positions in many industries. There are several opportunities in the city for part-time work in wood, iron, steel, and machinery. The girls of high-school age could work part time in connection with the various mercantile establishments. Secondly, there is no reason why boys and girls should not be trained for their parents' business as well as for that of others. In fact, the small enterprise furnishes an additional opportunity for vocational training over the large, at least in the early stage of the work. The boy may not only be trained on the part-time plan to perform the work in his father's business, but may share *in its direction* and management.

In establishing vocational instruction in this city, as in any other, there are four important problems: First, to furnish sufficient experience in the industries that are constant for all cities and in the industries peculiar to the home community; second, to furnish the requisite technical knowledge of both classes of industry; third, to provide instruction in citizenship, hygiene, and supporting subjects; fourth, to give, as far as possible, to every avocational student the opportunity of electing subjects of avocational and cultural interest to him.

In conclusion, it is worth while to consider from another angle the permanent effect which the introduction of vocational instruction into the present high school will have in vitalizing secondary instruction. When new branches have been introduced they have been gradually taken over into academic seclusion. In every case, however, the new branch has become exclusively a school branch completely nurtured and controlled by the school. Vocational instruction, however, is nothing, if it comes completely under the direction of the school. It cannot be successful, unless home, industry and labor join with the school in the undertaking. This very necessity will be a powerful factor in breaking down the insulation between school and society. All vocational teachers will have a direct responsibility to other institutions than the school, and in the united system of vocational and academic instruction this sense of social responsibility will extend to the teachers of academic branches. In this way the high school will increase its social efficiency.

SUGGESTIONS TO TEACHERS AND STUDENTS

1. What are the arguments for and against the dual system of vocational training? What are the arguments for and against the unit system? What changes would have to be made in the organization of the high school in your community to develop efficient vocational training? Are high schools, which are operating under the provisions of the Smith-Hughes law, able to give effective training

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and instruction to its vocational students in vocational skills; technical knowledge of the vocations; closely related knowledge in economics, vocational hygiene, industrial and vocational organization; general citizenship knowledge, and avocational and cultural activities and knowledge? If not, which of these five kinds of training are emphasized? What fraction of the vocational student's time in full-time high-school work should be devoted to developing vocational skills and to the technical knowledge of the vocations?

2. Describe the various plans for giving part-time vocational continuation instruction to students between fourteen and eighteen years of age. Describe the various plans for giving part-time vocational instruction to adults. Should boys and girls below eighteen years of age be allowed to attend night schools?

CHAPTER VII

THE NEED OF PREPARING STUDENTS FOR PROFESSIONAL DESTINATIONS

1. Recent Preparatory Instructional Tendencies.—

The chief characteristics of preparatory instruction in high schools during the last twenty-five years are focussed in the Report of the Committee of Ten, 1893, and the preliminary reports of the committees, composing the present Commission on the Reorganization of Secondary Education.

That there is a marked change in attitude towards secondary instruction since the Committee of Ten made its report is easily seen by comparing the preliminary statements of aims of instruction formulated by the chairmen of the various committees of the Commission of the National Education Association on the Reorganization of Secondary Education with those made by the Conference Committees of the Committee of Ten. The English Conference Report of the Committee of Ten announced the following aim: "The study of literature and training in the expression of thought, taken together, are the fundamental elements in any proper high-school course in English, and demand not merely the largest share of time and attention, but continuous and concurrent treatment throughout the four years."¹ This sentence constituted the formal statement of the aim in teaching English. One needs to read the entire report to discover the aims of the Conference for English instruction. One is struck with the amount of

¹ Report of the Committee of Ten of the National Educational Association, 1893, p. 90.

emphasis placed upon the scientific and critical study of the English language and literature and the lack of emphasis upon composition and the reading of literature for its thought content and appreciation. Indeed, the emphasis is decidedly linguistic in nature. In addition to the usual work in composition and literature the following topics were recommended for study in high schools: "Historical and systematic (or formal) grammar, one hour a week in the fourth year (a total of 40 hours);" "The history and geography of the English-speaking people, so far as these illustrate the development of the English language;" "Phonetics (to give a clear idea of the general pauses which have given English the peculiar value of its vowel symbols, and made them essentially different from the system of other languages);" "Word-composition (an elementary treatment of prefixes and suffixes and of word-composition);" "Elements of the English vocabulary (this should be included as a part of a systematic treatment of the history of the language);" "Changes in the meaning of words (this should be included incidentally in the interpretation of literature);" "Some attention to the study of dialects and literary language, authority and usage, decay of inflection." The Conference is of the opinion "that the best results in teaching English in high schools cannot be secured without the aid given by the study of some other language, and that Latin and German, by reason of their fuller inflectional systems, are especially suited to this end." The Conference recommended that the literature read should "represent with as few gaps as possible the course of English literature from the Elizabethan period to the present time."² Considerable space is given to the consideration of English as a college entrance requirement.

²*Report of the Committee of Ten, 1893, pp. 90-95.*

When we turn to the Report of the Commission on the Reorganization of Secondary Education, we find an entirely new point of view presented. We read from the report of the chairman of the committee on English (1913) that "These schools (high schools) have developed so remarkably in the past two decades that their function of preparation for advanced academic study is completely overshadowed by other functions. Moreover, these schools serve such various constituencies that the widest possible freedom is necessary."³ "The groundwork of composition will consist of those projects for speaking and writing which young people can be made to feel are worth while. Rhetorical theory will thus be made to serve as the handmaid of expression, not the occasion of it. Books for reading, likewise, will be selected because they are capable of producing a genuine reaction, not because they are illustrative of literary history."⁴ These aims are reaffirmed and restated in the final report of the Committee on English (1917) as follows: "Stated broadly, it should be the purpose of every English teacher, first, to quicken the spirit and kindle the imagination of his pupils, open up to them the potential significance and beauty of life, and develop habits of weighing and judging human conduct and of turning to books for entertainment, instruction, and inspiration as the hours of leisure may permit; second, to supply the pupils with an effective tool of thought and of expression for use in their public and private life, *i.e.*, the best command of language which, under the circumstances, can be given them."⁵

As regards instruction in Latin, the Committee of Ten

³ "Reorganization of Secondary Education." Bulletin of the United States Bureau of Education, 1913, No. 41, pp. 10, 11.

⁴ *Ibid.*, note 3.

⁵ "Reorganization of English in Secondary Schools." Bulletin of the United States Bureau of Education, 1917, No. 2, p. 30.

recommended that "The teacher of elementary Latin need not concern himself too much with the remote ends of the subject. To him the question should be: What knowledge is of primary importance as the foundation for subsequent work? Stated generally, it may be said that the work of the first period should be: (1) Learning to pronounce accurately and to read fluently and intelligently the Latin text of what has been studied; (2) the mastery of inflection, so that the number, case, person, mode, tense, etc., can be instantly recognized; (3) the acquisition of a working vocabulary of from one to two thousand words; (4) the mastery of the order of the Latin sentence; (5) the mastery of the simpler principles of syntax regarded as a means of expression; (6) learning how to understand a simple narrative in Latin; and (7) learning how to translate such simple narrative into true English," etc. Things to be avoided are: "(1) A dispersion of effort in consequence of the attempt to include too many parts of the study in the first stage; (2) an undue prominence of rules, and the treatment of syntax as an end in itself, rather than as an auxiliary to the penetration of the sense, and (3) the use of 'translation English.' " ⁶

As we turn to the report of the Commission on Reorganization of Secondary Education notice the "open play" of its recommendation for instruction in Latin. In the first place, there are several aims stated for the study of Latin with which the teacher should be vitally concerned. "To enrich the English vocabulary, both by the addition of new words and particularly by a more perfect mastery and a clearer understanding of many of the words already in use; to develop an appreciation of word, phrase, and clause relations; to teach clearness and accuracy of expression, both oral and written, to develop habits of

⁶*Report of the Committee of Ten*, p. 65.

industry and appreciation; to make the pupil an intelligent critic of his own oral and written speech and that of others; to lay a good foundation for the study of English and of other modern languages; to read some of the Latin masterpieces; to give a wider view of life through familiarity with the great civilization remote from the present, both in place and time, 'in the cool, calm air of non-contemporaneous events.'"⁷

The "reading of easy Latin should be begun immediately, or after a very few introductory lessons." Forms "should not be learned in parrot fashion, quite apart from their uses. The formal paradigms should follow, not precede, the actual use of the forms in translation. A large number of easy oral and, later, written exercises bearing upon and illuminating the story or fable which is read should fix these forms and the necessary syntax firmly in mind."⁸

"The fables and myths in the early period of study should be so selected that they would not only provide excellent training in reading Latin, but furnish as well a fund of legendary and mythological lore which would be of great value in the understanding and appreciation of English literature. If properly taught, the interest in the reading matter would be so great, and the relation of the grammatical work to that reading matter would be so direct and clear that an adequate motive for mastering the necessary technicalities of grammar would be supplied."⁹

It will be seen that both committees emphasized teaching the grammar of Latin as tools rather than as ends, but the latter more boldly sets forth the methods by which

⁷ Preliminary Report of the Commission on Reorganization of Secondary Education. Bulletin of United States Bureau of Education, 1913, No. 41, p. 35.

⁸ *Ibid.*, p. 37.

⁹ *Ibid.*, p. 38.

the tools of the language can be acquired and used in accomplishing definitely stated ends. There is evidence that educational psychology is beginning to have its influence. To quote again from the Commission on the Reorganization of Secondary Education: In "shaping our courses in Latin in secondary schools we have approached our problems with college entrance requirements in the interests of Latin chiefly in mind. Some of the tenderest-hearted of our guild have padded and smoothed the Procrustean bed a little here and there, but it is the same old bed upon which we force victims to lie. If the subjects of our ministrations writhe and groan, we take their sufferings as evidence that our methods are effective, fortifying ourselves with the assurance that Latin is a 'disciplinary' subject, and that 'all chastening seemeth for the present to be not joyous but grievous, yet afterward it yieldeth peaceable fruit unto them that have been exercised thereby.' We have set an arbitrary standard of attainment and have selected our subject-matter with an almost incredible indifference to the psychology of adolescent girlhood and boyhood." The placing of Latin among the elective subjects and its elimination from the list of constants is doing much to realize the ideals of this committee.

The traditional methods of the Latin teacher can find little sanction in our free, vitalized, and world-serving high school of the present. Latin teachers will do well not to overemphasize their branch or claim a corner on the intellectual market any longer. There are two great values of Latin instruction for the secondary school student. First, Latin may be made an aid in acquiring an accurate use of the English language. It is not the basis of the English language, nor is it fundamental in acquiring English, but it may be made a powerful auxiliary. *Latin may be made a powerful auxiliary for acquir-*

ing English, but that it is, as usually taught, is open to serious question. If it is true, as many classical teachers believe, that it is impossible in the first two years of Latin to introduce the student to Roman life and institutions, then why not emphasize the propædutic value of Latin in acquiring English by actually establishing the linguistic connections between Latin and English. This becomes especially important when you consider that the great majority of those who elect Latin in the high school pursue it only two years. And, moreover, such an example would not be a loss to the future student of the classics. A second value of the study of Latin consists in penetrating the ancient world and saving its contributions for modern life. In addition to the acquisition of the medium of the language, the student should be immersed from the very beginning in the study of ancient life, its literature and history, through the vernacular. Such study would furnish a motive for securing a better knowledge and appreciation of ancient life through the classical medium.

In this connection it is significant that the American Philological Association reported in 1909 in favor of something less than two years of prescribed reading for admission to colleges requiring four years of Latin. The report favors even more reading than formerly, but much freedom in choosing their particular selections. More emphasis is laid upon sight-reading.

Within the last ten years a number of universities have introduced several classical courses to be read in the vernacular. The movement is full of suggestion for the classical teachers of secondary schools.

What do we find when we compare the recommendations of these two reports on the branches which make up the social core of high-school instruction? The purposes of history instruction, conceived by the History,

Civil Government, and Political Economy Conference of the Committee of Ten were as follows: (1) History instruction should give "a body of useful facts." "It cannot be too strongly emphasized that facts in history are like digits in arithmetic; they are learned only as a means to an end." (2) History is important as a means of training the mind. "History and its allied branches are better adapted than any other studies to promote the invaluable mental power which we call the judgment." (3) "'Since grappling with history is grappling with life,' . . . 'the main aim in teaching history is to develop those powers in the pupil which will best serve him in life.'" (4) History is a part of a good education in preparation for citizenship.¹⁰

These aims of history instruction included those of civil government and economics, for the latter branches were considered simply as phases of history. The subject of civics of which civil government constitutes only a part was not included in the deliberations of the Conference. Little place was given to the study of civil government and political economy outside of the regular history courses. The report was, therefore, practically limited to history instruction. History was the trunk, while civil government and political economy were relatively its insignificant branches.

When we turn to the recent Report of the Committee on Social Studies of the Commission on the Reorganization of Secondary Education we find a new point of view introduced. First, instead of making a statement of aims for history, the Committee states the aims of the social studies, which among other studies include history. Second, a statement of aims omits any reference to the disciplinary aim. Third, the civic aim determines what is

¹⁰ Sentences (1), (2), (3) and (4) above, were selected and condensed from the Report of the Committee of Ten, 1893, pp. 168, 169.

worth while in history. The following quotations from the report will make these points clear:

"Aims of the Social Studies.—The social studies differ from other studies by reason of their social content rather than in social aim; for the keynote of modern education is 'social efficiency,' and instruction in all subjects should contribute to this end. Yet, from the nature of their content, the social studies afford peculiar opportunities for the training of the individual as a member of society. Whatever their value from the point of view of personal culture, unless they contribute directly to the cultivation of social efficiency on the part of the pupil, they fail in their most important function. They should accomplish this end through the development of an appreciation of the nature and laws of social life, a sense of the responsibility of the individual as a member of social groups, and the intelligence and the will to participate effectively in the promotion of the social well-being."¹¹

"The selection of a topic in history and the amount of attention given to it should depend, not merely upon its relative proximity in time, nor yet upon its relative present importance from the adult or from a sociological point of view, but also and chiefly upon the degree to which such topic can be related to the present life interests of the pupil, or can be used by him in his present processes of growth."¹² The statement of aims by the committee in its final report of 1916 is not essentially different from its preliminary statement of aims in 1913.

The preliminary statements of the Commission on the Reorganization of Secondary Education on other high-school branches are too brief to make extended comparisons with the Report of the Committee of Ten pos-

¹¹ "Report of the Committee on Social Studies" of the "Commission on the Reorganization of Secondary Education of the National Education Association." Bulletin of the United States Bureau of Education, 1913, No. 41, p. 9.

¹² *Ibid.*, p. 44.

sible. However, they are sufficient to show: (1) That the former exclusively preparatory aim is being rapidly broken down even in the older branches; (2) that the high schools are facing the problem of preparation for life directly, and that subjects are to be admitted to the curriculum on this basis; (3) that the socializing of instruction, both in content and in method, is necessary to accomplish this purpose. For example, in natural-science teaching it must be determined "in what ways science instruction may contribute to the well-being and progress of the community. By selecting material for study from the industries of the town or city and by acquainting the pupil with local applications of physics, chemistry and biology, the science teacher can develop interest in and promote intelligence regarding community activities."¹³

The socializing point of view was conspicuously absent in the Report of the Committee of Ten, while it is conspicuously present in the Preliminary Report of the Commission on Reorganization of Secondary Education. We find it in the treatment of the method and the content of the various branches, and, also, in the provision for the committees into which the commission is divided. Among others, the following committees are provided: Committee on Social Studies; on Household Arts; on Manual Arts; on Music; on Business; and on Agriculture. It is to be regretted that so few of the committees of the Commission on the Reorganization of Secondary Education have as yet made their final reports.

2. Reciprocal Relationships between High Schools and Colleges.—The general organization of elective groups as preparation for entering college and a system of high-school exemptions and college equivalents were

¹³ "The Reorganization of Secondary Education." Bulletin of the United States Bureau of Education, 1913, No. 41, p. 30.

briefly considered in the chapter on "The Social Core of the High-school Curriculum." A more definite proposal follows:

OFFERED		REQUIRED	
High school exemptions	Units	College equivalents	Hours
A foreign language.*	3	A foreign language.	0
A foreign language.	2	A foreign language.	5
A foreign language.	1	A foreign language.	10
A foreign language.	0	A foreign language.	15
Physics or Chemistry.	1	Physics or Chemistry.	0
Physics or Chemistry.	0	Physics or Chemistry.	5
Botany, Zoölogy or Physiology.	1	Botany, Zoölogy or Physiology.	0
Botany, Zoölogy or Physiology.	0	Botany, Zoölogy or Physiology.	5
Physiography or Geology.	1	Physiography or Geology.	0
Physiography or Geology.	0	Physiography or Geology.	5
Mathematics.	2	Mathematics.	0
Mathematics.	1	Mathematics.	5
Mathematics.	0	Mathematics.	10
Ancient, Modern European or English History.	1	Ancient, Modern European or English History.	0
Ancient, Modern European or English History.	0	Ancient, Modern European or English History.	5
Literature (English, American or both).	1	Literature (English, American or both).	0
Literature (English, American or both).	0	Literature (English, American or both).	5

* Students desiring to pursue some foreign language in college other than that taken in the high school will be required to complete fifteen hours.

Assuming that a student is a graduate of the full three-year course of a senior high school, having the constants of the curriculum as outlined on page 25, *viz.*, English composition, 2 or 3 units; Contemporary World History, 1 unit; American History, 1 unit; Civics, 1 unit; Physical Training (including personal hygiene), 1½ to 3 units; how could a university enter him for full freshman standing? It could grant him clear entrance and guard its foundational work leading to the A.B. or B.S. degrees by applying a plan of high-school exemptions and college equivalents as follows:

Each high-school unit should be regarded as equivalent to five college hours. Each high-school unit offered for entrance should reduce the student's college requirements in a given subject by five hours, and no credit less than one unit should be counted. Fractional parts of a unit above one or more units in the same subject should count for credit by adjustment and approval of the college department concerned.

Thorndike found that the correlation between entrance examinations of students and their future college or university work was very slight.¹⁴ In institutions receiving students from accredited high schools without entrance examinations there are discrepancies in the correlation between the work of the high schools and the college. Instead of charging all deficiencies of freshmen to the high-schools, college and university teachers are beginning to search for their share of the responsibility.

A committee on freshman instruction of a western state university raised and investigated, among other questions, the following: "How are we conducting our courses from the point of view of the freshman as he comes to us from the high school?" The freshman instructors of the departments of civil engineering, mathematics, chemistry, geology and history, separately met with the committee for the discussion. Written reports were secured from a number of other departments. The report of the committee on this question follows in part. It is chiefly valuable for the questions raised rather than for its conclusions:

"It is found that there is a very high percentage of poor work and consequently 'flunking' in the freshman year; here the goats are separated from the sheep, and, of

¹⁴Thorndike, "Future of College Entrance Examination Boards." *Educational Review*, May, 1916.

course, there should be a separation, but the accuracy of our separation may be questioned. We pay little attention to the actual or supposed preparation that the freshman brings to us. We assume that he must be prepared for us without, also, assuming that we should be prepared for him."

"We receive all students alike from the high school, whether they have had any preliminary preparation in our branch or not, and herd them together in one class. There are some exceptions to this statement. On inquiry it was found that the students who had the preliminary training in the high schools do no better work than those who had none. Indeed, in one college they were said to do much poorer work. And yet, on the other hand, in a few departments where recognition is given to the high-school preparation the students are able to take up the advanced courses and pursue them successfully. Wherein lies the inconsistency? Is the high-school work in any branch worse than nothing as preparation for that branch in the university? If so, has it any preparatory value for other college branches? Perhaps those students with previous high-school preparation who are allowed to take second-year work in the same line in the university would not be able to do the freshman work as well. Such considerations as those lead us to ask the question, 'What becomes of the university's list of prescribed preparatory subjects?'"

"Still other questions arise: 'What becomes of our principle of prerequisites in the university? Do we give the students some good, stiff, productive courses in the freshman year only to teach them in the upper years that we were fooling?' As a matter of fact, students know by actual experience that many of the upper-class courses with a string of prerequisites before them can be successfully pursued in the freshman year much more easily than

the freshman courses. Then, too, there has been a tendency on the part of the faculty to consider the system of prerequisites lightly, judging by the exceptions to the rule allowed. What is our theory of prerequisites?"

"The first course in mechanical drawing of the engineering college illustrates something of the sources from which the foregoing questions were derived. Instructors giving the first course in mechanical drawing testified that students offering high-school mechanical drawing did poorer work than those who had none. Through questions directed by the committee, the following information was secured concerning the mechanical-drawing course of the engineering college: First, that all engineering students, with or without high-school mechanical drawing, took the course together; second, that while any student would be permitted to do the work of the course as rapidly as he desired, yet no incentives were offered him to work in advance of his class; third, that students offering high-school drawing were not told that any more would be expected from them than from those who were pursuing the subject for the first time; fourth, that the courses in drawing in the high schools and in the engineering college alike were conducted by the dictation and imitation method, as distinguished from the problem method of instruction; fifth, that the systems of lettering, use of instruments, etc., in the high schools and colleges differed considerably; sixth, that the students offering high-school drawing did better work in the first semester than the others did, but began to drop behind about the middle of the second semester."

"On the basis of these statements secured from the drawing instructors, there seem to be two possible explanations. First, if more were required of the student offering high-school drawing than from the others, he would do more. The fact that he does better work than

the others the first semester and begins to do poorer work by the middle of the second semester seems to show that in the early stages of the work he regards it as easy and, through lack of attention and motive for doing superior work, he wakes up finally, too late, only to find that he has lost much of the work accomplished by those who are compelled to work hard from the beginning. Secondly, a system of imitation drawing does not offer good preparation for another system of imitation drawing in the college; and if the problem method were used both in the high school and college the difficulty might be solved. If students are required to think their courses through, mere differences of lettering and mechanical procedure offer no great obstacle to progress."

"A similar lack of articulation with high-school instruction was found in a number of other departments. Such examples serve to emphasize the necessity for a thorough study of the relation of the university freshman work to high-school instruction. It is quite possible that a system of segregation of students into different classes, based upon various kinds and degrees of high-school preparation, would improve freshman instruction. Many high schools, to improve their instruction, have a system of following up the work of their students in the university. Would it not be well, also, for the university to have a 'follow-back' system to the high schools, to improve freshman instruction?"

"Regarding the question of the relation of freshman courses to the high-school work, we believe that the university departments should be urged to make an investigation of high-school work in their lines, with the object of linking up the work in the two schools. The suggested method is the calling together of the instructors in the two schools from time to time in each line of work

for mutual consideration of questions, the university teachers taking the initiative."

"Other visible signs of deficiencies present themselves. The prevalence of poor work on the part of students is shown only in part by the large 'flunking' list. There is a lack of initiative on the part of students who are ordinarily good absorbers. They lack, also, a knowledge of the essential features of the branches pursued. They lack purpose for doing work. They lack in organizing ability. There is a tendency here, as elsewhere, to 'crib.' What do these matters mean when considered in relation to our instruction? Are we warranted in dismissing these details as the result of poor high-school training and 'natural, inborn laziness,' and if we would be warranted in such a conclusion, still does not such a condition present important problems of instruction for us?"

"What are we doing to secure initiative? Are our students reading, or working toward the solution of problems, in part self-assigned, or wholly assigned by the instructor? For example, one department specified that on the average students perform not more than 75 per cent. of the work assigned by instructors, and that none of the students in that department ever did more than the assignment. Are students reading or working toward the solution of any problems first discovered by themselves? Some instructors assign so many pages of collateral reading in certain books, on which they check up by reading the students' notes or by giving them quizzes, oral or written. Is this the final and approved way? How long must the time be postponed when the student should be allowed and encouraged to read for his problems, to go about his work as the instructor does, or should do? Do our students, and especially our freshmen, need any training in the use of materials? Does the

tendency to carry away library books without leaving a record have any relation to methods used in assigning readings? Is there any relationship between the over-emphasis of the final examination as determining the students' final standings, and 'cribbing'? Should a student be given an average grade of B or C for the entire semester and then be 'flunked out' on his final examination? Have the students the right to know from the beginning the instructor's system of judging them? Are all of these matters not largely problems of instruction?"

"To what extent is our instruction planned to discover, and having discovered, to reinforce and feed the enthusiasms and ambitions of our students? If this could be done, then we really could get some efficient work done. Can we reasonably expect our students to be superior to us in this respect? We pursue our particular line because we have an enthusiasm for it, but very frequently we have little, if any, enthusiasm for anything else in the university, and yet we expect our students to have a dozen enthusiasms to our one. The qualities of our judgments upon matters outside of our own departments seem to show that we are not very strong on outside enthusiasms. Is the student like us in this respect? or does he belong to another order of nature? How much does our instruction assist in throwing the student into a real thinking situation?"

"The committee found that a number of instructors felt that students should be held for good thinking, but that they should be kept in the dark as to the method of their own thinking. In other words, a student is not to check up on the validity of his own thinking in terms of his own mental processes. How much can instruction help students in weighing relative values and in developing a practical logic in his branch of study? Would it not help if the instruction could be so arranged that the stu-

dent would ask himself the question, 'What does this thing mean?' and not, 'I wonder what he wants?' not, 'Can I find an answer-book, a note-book or a pony that will pull me out of the hole?' If a student could in some way be assisted in forgetting his professor, and could face the problem squarely on its own account, the first great battle would be won."

"What may we say of the various methods of instruction in vogue as factors in the organization and control of a subject by the student? First, a course may be suggestive and interesting without being thorough, complete, productive, or instrumental. Second, on the other hand, mere sequence of topics supplied largely by the instructor is not organization; merely following a logical development of a subject is not organization. Third, merely the use of the question-and-answer method will not secure organization. The scope of the instructor's questions and the completeness of the student's answers are important in organization. The answers should be as full as the requirement for the question demands. Fourth, the lecture will not secure organization unless students are made responsible in some way for applying the lecture. Instructors are too fond of hearing their pet ideas come back to them in sealed packages containing the original unadulterated stuff. Has a student really reacted upon the lecture, or has he 'canned' it for return delivery? Or has he merely slipped off and is able to come back, now and then, with a dribble of the original? Fifth, the drill method will not secure organization, although for purposes of holding matter temporarily until it can be used it may help organization. Sixth, the organization of the subject requires that its parts as well as the whole be used as instruments in thinking again. Its content must pass definitely into channels of power—power to do *certain things*, think *certain things*, appreciate *certain things*;

this passing of content into power cannot be postponed to take place in the indefinite future. Seventh, shall the instructor assume the entire responsibility for leadership in the recitations? Shall he always be in the pilot house? Eighth, how much of the responsibility for the success of the work shall the student take? Ninth, what other problems of instruction are evident?"¹⁵

Another important question frequently arises regarding college preparatory instruction. Will not the aim of socialization of instruction and the divergent aims required by vocational instruction in the modern cosmopolitan high school result in a confusion of purposes which will lower the standards of preparatory instruction? Such a result will undoubtedly occur unless high-school teachers and principals are clearly informed regarding the guiding purposes and practices required. On the other hand, professionally-trained teachers and principals *ought* to be able to maintain higher standards of preparatory instruction than ever before.

The very fact that branches are used in so many ways as instruments of social interpretation and of vocational knowledge and skill should make preparatory instruction stronger than ever before; stronger, because through its daily applications it will gather meanings, and through meanings it will be assimilated and thus become a permanent acquisition to use again when the need arises.

The preparatory function of the high school cannot be ignored, but it should be understood, for the colleges and universities still have a tremendous influence in shaping its courses of study, in providing its textbooks, and in training its teachers. Efficiency of the high schools is due in large measure to the influence of the colleges and universities. The tendency sometimes in evidence to

¹⁵ Lull, "Notes on the Uncompleted Work of a Committee on Freshman Instruction." *School Review*, October, 1916.

make the high schools independent of the universities, which really means to make the universities dependent upon the high schools, would, if realized, be a long step backwards. The college was the mother of secondary education, and, in spite of the fact that she has often seemed to be a stepmother, her influence in the main has been strong and wholesome. Even the overemphasis of the formal and mechanical side of preparatory instruction has not been without some good results. It has helped to eliminate many unnecessary or special processes and to substitute the more fundamental. It has helped to simplify the technical subjects and to organize them into more intelligible and economic forms. Wherever strong colleges have been founded there has come in time a strong system of secondary schools. In this connection we must not forget the debt we owe the religious interests for anticipating by two hundred years our public system of universities and high schools by providing a system of secondary schools, as well as colleges, which were far in advance of anything that could have been produced by the civic spirit and state organization of the time.

SUGGESTIONS TO TEACHERS AND STUDENTS

1. What other studies than the one presented in this chapter on the relation of students' work in high school and college have been made? What conclusions may be safely drawn regarding the articulation of college and high-school work? Should the constants of the high-school curriculum be determined regardless of college entrance requirements? See Chapter II of this book. Does the system of high-school exemptions and college equivalents described in this chapter afford a satisfactory solution of the curricular part of the problem of articulation? What institutions of higher learning have adopted this plan in whole or in part? What effect should the establishment of junior colleges as extensions of high schools have in solving this problem?

2. How do the methods of conducting high-school instruction compare with those ordinarily used in the freshman classes of the university? What should be done to bring the high schools and the universities closer together in this respect?

CHAPTER VIII

THE NEED FOR RECREATIONAL AND AVOCA- TIONAL ACTIVITIES AND FOR A GENERAL CULTURAL DEVELOPMENT

The high school that fails to recognize the needs of adolescents for a large variety of recreational activities, but instead discourages the dance, the hike, the class play, the literary society, the school circus, the school or class banquet, the school or class picnic, class organizations or class politics, and all forms of athletics, encourages the very thing that it is trying to prevent, *viz.*, social morbidity and immorality. The recreational impulses of adolescents are fundamental and will find some means of expression. It is squarely up to the school to provide a variety of wholesome opportunities for recreation, and by teaching the highest forms of these activities to avoid the evils that would otherwise occur.* Dancing is not bad because it is dancing, but dancing is bad sometimes because it is done under bad conditions and sometimes because it is bad dancing. When the conditions of dancing are bad, it is usually because the school authorities and the community do not allow students to dance under the auspices of the high school and the teachers are forbidden to participate. Teachers and the school patrons need to do some good thinking and planning on the subject of high-school recreations.

Not only is a development of recreations in a community essential to the physical and social well-being of its people, but it is, also, essential to their moral growth and relationships. The following excerpt, clipped from a local paper in a Kansas town, although a part of it was evidently written in a spirit of jesting, illustrates a typical recreational condition in many small places. For local

patriotic reasons the writer of the article, from which the quotation is taken, prefers to withhold his name in this connection and, also, the name of the town, from outside circulation. He was evidently a newcomer in the community.

"The puritanic attitude of the people of (X) attracted my attention at once. I had heard of Carrie Nation, of course, and I knew that Kansas was dry. The state I came from was dry, but the people there hadn't generalized upon dryness as I found to be the case here. The attitude of the people toward the whole question of recreation seemed peculiar to me. They had banished the pool halls and had put pegs in the billiard tables at the Y. M. C. A. They had prohibited baseball and closed the movies on Sunday, even hiding away the movie-posters on the Sabbath Day. They had even persuaded the fish in the streams not to bite on the Lord's Day. They had constructed two magnificent slippery floors, one in the Technical School Gymnasium and the other in the High-school Gymnasium, yet the social suggestion which comes to all normally developing young persons, and to many old ones, was strictly taboo. Not being addicted to the vice of playing flinch, and not being able to buy an automobile, or even a Ford, or to join the Country Club, I said to myself, there is only one recreation left for me, attend the movies, save one, on week-days.

"The point of all this is, that the people are strong on prohibition, but rather weak on recreation. Church entertainments, even, seldom occurred. The only recreation of a public nature of any consequence were the plays staged by the local dramatic society. Before long, however, I observed that the young people, impelled by their instinct for play and sociability were improvising certain modes of recreation for themselves. There were numerous *little dancing groups*, wherever a little floor space

could be secured, and students from the high school and other educational institutions of secondary and college rank were there. Many of their attempts at graceful and rhythmic movements were extremely awkward, especially those of the boys, for the girls had been taught the art of dancing among themselves in the gymnasiums of the town behind blinded windows and doors. I, also, noticed that the sport, which was called 'Queening' in my college days, was very popular in this community. It appeared, also, that the young people resented the presence of a chaperon. The fraternities and sororities had learned to depend upon themselves, and they wanted no advice or regulation by older and supposedly wiser heads. Further confirmation of the lack of interest in the recreation of young people was afforded, when I learned that the local Board of Education had rejected the petition of a large number of the high-school students to hold dancing parties in the High-school Gymnasium. I was shocked when I finally learned that this action was taken on the recommendation of the Ministerial Association. The Board further prohibited the teachers from chaperoning high-school dancing parties. As might be expected, the young people danced, not at the high school, but at the Commercial Club, Odd Fellows' Hall, and other popular resorts, without the direction of that class of people who are the best prepared to help them enjoy clean and wholesome recreation. Some recreations, of course, by their very nature are bad, and should be eliminated, but others are bad only because they are perverted, and they are perverted because they are taboo. A pool-table in a dirty smoke-house is one thing, but a pool-table in the Y. M. C. A. is quite another matter. By the way, the same Y. M. C. A. which had prevented the boys from playing billiards by pegging the tables relayed the news of the Willard-Dempsey fight under the auspices of the

Boy Scouts. 'Consistency, thou art, indeed, a jewel!' Not only should we lift the taboo from certain recreations which under right conditions are not only harmless, but life-invigorating and socially uplifting, but we should develop a large variety of recreations. When we stop playing, we die, mentally and physically."

Another type of community, which presents a much worse recreational situation than the one above described, is the so-called "wide open" town, where the young people indulge in recreational activities to excess without sufficient social safeguards and guidance. In such places the public dance halls, the public pool halls and smoke-houses are the altogether too common rendezvous for high-school students.

An instance of such a town occurs to the writer where twelve splendid high-school girls and many more high-school boys were rapidly traveling down the road to moral ruin. As it proved later, some of them had gone beyond recall before sufficiently vigorous steps were taken to check their downward march. The change was initiated by the superintendent and his high-school teachers. With the coöperation of the board of education the superintendent and his teachers quietly made a survey of the moral conditions of the town which were affecting the high-school students. The next step was to regenerate the moral condition of the students. Each teacher and the superintendent assumed the moral sponsorship for certain students. The superintendent secured the coöperation of some of the parents of the students who could be relied upon to help. The church connections of the boys and girls were ascertained and the coöperation of the ministers was sought. One young minister organized and coached a football team of high-school boys. The Catholic priest of the town exercised an *uplifting* influence over the boys and girls of his parish

who were known to be among the morally delinquent of the high school. Certain business men were taken into the confidence of the teachers and did excellent service in securing the proper regulation of community recreations. The work was carried on in secrecy and the names of the boys and girls involved were never known outside of the group working in their behalf.

The point of both of the above illustrations is, that the play impulse is perfectly normal and, therefore, must have proper expression. Recreations in abundance should be provided and wisely regulated.

Boys and girls of the high-school age ought to be stimulated to develop avocational interests. One who follows a sedentary, literary, or a professional pursuit should acquire some handicraft or physical activity with which to occupy some of his leisure time. As a general rule, it would be well for boys and girls preparing for college to find avocations in connection with the vocational work of the high school, and for the boys and girls preparing for the vocations to develop avocational interests in connection with the courses in science, history, literature, music, etc. Much emphasis should be placed upon developing artistic appreciation and execution in both recreational and avocational activities.

We make a mistake by limiting the expression of the play impulse to the so-called student activities and by making the studies *in cursu* predominantly a matter of work. Our students would gain much if they would carry more of their play life into the so-called regular activities of the school. It might be a good plan to offer a variety of subjects, or parts of subjects, which students would elect for no other reason than simply the joy found in their pursuit. Parts of history, literature, science, industry, music, and art could be set aside for this purpose. These courses might be presented quite illogically and unsyste-

matically. Students should be stimulated to speculate and dream in them, to raise questions, to discuss freely and to idealize. This kind of reading and thinking is very important outside of school. Such reading and thinking are essential to culture. Much of the teaching of literature, of the classics, of history and of science has failed to make its cultural contribution, because it was made too technical and pedantic to stimulate ideas. Boys and girls need to learn to play more on the higher levels.

If students are to play more on the higher levels of activity, we must emphasize the influence of personality and of personal ideals in our teaching. Our course of study, our daily programs, our laboratories, and our methods, however scientific they may be, must always be freighted with human aspirations.

Whatever is done in educational theory, system, or practice is done for the learner, and all theory, administration, and supervision must focus in the relationship between teacher and pupils. Contrary to the popular opinion and general practice, the teacher should be regarded as the high priest of the school system. He may not be the originator of wise methods, but he must be a progressive student of the science in order that he may be more than a mere slave in the art. Of course, we all believe that the science and art of teaching are indissolubly bound together, but as a matter of fact they are too much separated in practice. What we as teachers need to-day more than ever before is educational insight. Our system, courses of study and supervision have gone way beyond the power of the average teacher to execute intelligently. On the other hand, the mechanical execution of the average teacher has never approached its present perfection. It is in the field of the invisible and the remote results that we are failing. Through the closer *relationship* of supervisor and teacher we have better

form work in all studies, but there is much reason to question whether or not our students are gaining in initiative, in will power, in moral motives and purposes over those of former generations. The absorption and prescription methods of instruction occupy too large a place in our teaching. This is especially true in the larger places where the demands of system are intricate. Indeed, supervision through the effort to increase the efficiency of the teachers by further perfecting the system often leads to inefficient teaching. To the end of visible or the so-called tangible results there is a tendency to over-emphasize mere experience. Experienced teachers of very low calibre are often valued too highly. Such teachers are able to grind out the grist. They can handle large numbers. There is a tendency to increase the number of pupils per teacher rather than decrease. Such teachers are mechanically efficient, but not efficient from the standpoint of life-giving and healthy growth. The teacher who has daily revelations is the most efficient.

There is much useless waste in the professional training of teachers. The spectacle of young teachers studying school management after the "Cook-book plan" is a hopeless attempt to bring the ends of the educational universe together. There is too much emphasis upon mere device-giving instruction for teachers—too much time spent in giving prescriptions concerning how to do this thing or that thing, how to ask questions, etc. The writer once had an excellent teacher who asked many questions which could be answered by "yes" or "no." This teacher was an excellent teacher and yet he violated the pedagogical platitudes in every lesson. The good teacher is free from prescription of device. He makes his own device. No device will save the teacher who is not a progressive student of the great problems of education. We must look to the careful training of teachers to the end of

skill. Yet skill of execution not directed by insight is not as valuable as the services rendered by a teacher of insight, although lacking apparently in skill of execution. The intense specialization of our day places the responsibility of breadth and insight, as well as skill, upon every teacher. In other words, the teaching insight of the teacher must keep up with the great purposes and opportunities of the system. But how can all of this be accomplished, you will ask? When we think of the academic requirements, the many pressing social requirements, and contemplate the fact that in our country there are departments of education, psychological laboratories, and sociological investigations constantly yielding more problems for teachers—the question of maintaining one's rational existence and professional intelligence is certainly formidable. How can the teacher discharge the scientific and routine demands of his work without going mad? This is perhaps a bald way of stating the case, but it strikes very near to the truth.

The remedy evidently does not lie in drawing away from our educational problems nor in being indifferent to their import. The days of educational asceticism have long since passed. Life in full measure is the ideal of the teacher. In attempting a solution of this question, let us not forget that there is a very small residue of really fundamental principles left as a result of all research and discussion upon the subject of education. This residue, however, the teacher must clearly discern and use. Such discernment demands liberal scholarship and educational insight. Thus far we have emphasized the importance of teachers meeting the scientific demands of the profession. Important as these demands are, there are other demands very much more important, although they receive less attention in educational discussions. They *are more difficult* to master because they exist largely in

the field of unconscious life influences, of personality, of native talents, etc. Yet a teacher's strength in these respects goes a long way in making up for any deficiency in the scientific knowledge of the profession. But this phase of our teaching preparation is intangible. Why should we bother our minds with it? The answer is, there are many intangible things in this world, the intangible in religion, the intangible in art that cannot be accurately classified or reduced to the precise methods of science, yet they are infinitely worth while; they are well worth our consideration.

The fact is, the profession of teaching is more largely a matter of a quasi-intangible art than of art based upon the findings of science. The success of the teacher lies in his suggestiveness rather than in the finality of his expositions, or in the completeness of his analyses. Teachers have great need of thinking and living the artistic life. The modern teacher is coming to be characterized by his capacity for "fussing." The longer a teacher remains in the service the greater his capacity becomes for worrying himself and others of the profession with recitals concerning the endless details of his work. This is partly due to the fact that he is lacking in knowledge of the fundamental principles of his methods, but it is more largely due to the fact that he is not growing in poise, in ideals, in inner harmony, in self-control, in self-sufficiency and at the same time in social sensitiveness. We live in the atmosphere of the industrial world. We have taken over too much of its seething, restless rush without learning the lesson found in its control. We ask again, how can the teacher discharge the scientific and routine demands of his work and still abide with the sane?

The one great ideal of the teacher should be to attain for himself a distinctive personality. Personality is the result of the making over of oneself by oneself through

the suggestiveness of other individuals. Every teacher should be a bit of a philosopher without being fantastic or visionary. Certainly no other calling offers better opportunity for reflection and practice than does that of the teacher. The great trouble is that he is more of a doer than a thinker, and this fact disintegrates his personality. He comes to belong to the "jumping-jack" class who act on the application of external pressure or to a class of fanatics characterized by a thousand inconsistencies.

What is personality? The Greeks attempted to answer this question by answering the question, What is the end of living? One school of Greek thinkers found the answer to be in seeking pleasure, the other in the performance of one's duties. To-day this distinction seems to be a mere quibble of terms, for the realization of either end requires the realization of the other as condition. Grant that pleasure is the end, then the failure to perform one's duty to one's self and to others limits the possibilities of pleasure. Grant that the performance of duty is the end, then the manner of doing one's duty is an essential part of the duty itself. The manner and spirit of teaching is no less important than the truths presented. The so-called sacred subjects may be presented even by a well intentioned teacher in such a way as to yield anything but sacred results.

On first thought, personality defies analysis, because there are as many personalities as there are individuals. The ideal personality, like that of divinity, transcends finite understanding. We may, however, discover and utilize some of the elements of a certain type of personality. A teacher is said to possess a strong personality if his presence and activities inspire strong, wholesome, pleasurable, and purposeful activities in his pupils. In the first place, this stream of influence is characterized by the energy and the force exerted.

No art is possible unless there is surplus energy in excess of that required to perform the regular and ordinary functions of body and mind. Art production always demands a reserve. No nation which has expended all of its energy in material advancement has ever produced a great art. So with the individual without energy in reserve, there can be no art production, or real art appreciation. Just so far as such a reserve exists there will be imagination and creative possibilities. So the teacher who does not possess and continue to possess an adequate store of energy in reserve can never become an artistic teacher.

Another essential characteristic in the personality of the teacher is the æsthetic sense of proper social relationship. In primitive as well as in modern times a crude manifestation of this sense is found in ornamentation. Ornament is important because it is typical of a large class of æsthetic expressions. In this desire for ornamentation we are confronted with a social force which took its origin in prehistoric times, a force which has steadily and powerfully persisted all through the centuries of the evolution of the race. There came a time in the life of the race when that which the individual thought of his appearance had much to do with his peace of mind. The use of ornament marks a period when prehistoric peoples began to bury their dead. It was the consciousness of the *me* that developed the regard for the *not me*. To primitive peoples ornament was a badge of fellowship; it was used as a sign of the individual's station in the life of the group. In the days when savage tribes were warring for supremacy, it was a sign, crude as it was, of the solidarity of the group, and hence in times of outward danger it lent itself powerfully to the preservation of the tribe. Various kinds of personal decorations were used to indicate who were to serve as slaves, who as warriors, and who as

leaders, much in the same manner as the decorations of the cap-and-gown men indicate who are bachelors, who are masters, who are doctors. It was used in religious ceremonial as an outward expression of their conscious relationship to their deities. It was used in profusion at times of incantation, in war dances and on gala days. On the latter occasion, it was a source of joy and self-exultation, and, if you please, it was the outward expression of an inward craving for something ideal. The impulse which seeks satisfaction in ornament when developed and softened by experience becomes the art impulse. Just as art production and appreciation is an evidence of the self-consciousness of the race, so that of ornament comes with the self-consciousness of the individual.

So teachers, the imagination of how they appear to others, and especially to you, is a controlling force in the minds of all normally developing students. This is the inner fact of ornament. How shall we use it? What the students think that you think of them will determine in large measure your power as a teacher, and what your neighbors think that you think of them will determine in large measure your success as a citizen.

The self-thought of how the other person regards, not only our dress, jewelry, complexion, etc., but of what he thinks of the soundness of our thought, the manner of our speech, the quality of our disposition, of our morality and our character in general—these things are powerful factors in determining our social effectiveness. Of course, there arises a conflict among the many persons that we think others would have us be. Selection and rejection of qualities imagined must then take place or an unstable character is the result. This living the life of the other fellow, the appropriation and rejection of quali-

ties according to their present ideal worth, is the process involved in the development of a personality. You have without doubt known among your acquaintances men who were strongly positive, were always actively engaged in impressing the virtues of their particular propaganda upon you, but who in turn were restless and unreceptive when they were expected to listen. Such men are usually great motive forces and are very useful when action in their line is required, but they rarely, if ever, show much progress. What they think that the other fellow thinks of them is far from correct. They are insensible to the finer social relations. What is the value of these reflections for us? It is the teacher's problem to recognize the full significance of this social-aesthetic emotion existing in himself and his students. Beginning with its first crude manifestations, gradually elevate it to higher levels, for this is character-building, this is building personality.

Again, the teacher who would become the artistic teacher must acquire mental rectitude and originality. The teacher of mental stiffness, stiffens the minds of his pupils. Happily some of the afflicted escape in spite of the teacher. We should be constantly seeking for revelation in our thinking. We are not mere plodders in the well-beaten paths of dull science. Science should not only explain the perplexing problems, but it should reveal more and more of the marvel and wonder of this universe to us. The period of youth is marked by dreams of achievement and feelings of expectation. Happy is the teacher who recognizes the meaning of the "blooming" freshness of youth and seeks opportunities for its proper expression.

The great questions I, as a teacher, must ask and answer are: What is my outlook upon life? What is the quality of my daily life in relation to my students? What are the quality and power of my suggestions? What activities

and thoughts do I inspire? Do I leave them with free and unbiassed minds? Do I lead my students to take themselves seriously as responsible, free moral agents? Are my students optimistic? Are they laboring with the conviction that service and enjoyment reinforce one another and cannot be permanently separated? If these considerations inspire and direct my endeavor, I need have no fears because of my inability to master all educational problems. It is my attitude toward these unsolved problems, my attitude toward life, my attitude toward my profession that determine my contribution to the progress of society. One's attitude, openness of mind, power of uplift, versatility, genius may go way beyond his scholastic attainments. The teacher of the future will possess an abundance of surplus energy, will possess the æsthetic sense of the social relationship existing between himself and his students. The teacher of the future will be a man or a woman of intellectual and moral rectitude, liberal minded, and fearless in action. The ideals of his endeavor will be individual initiative, moral strength, a cultured happy life, a life worth while, and a life worth living.

We have dwelt somewhat at length upon the personal element in cultural development because there is real danger in these days of scientific progress in education that we shall substitute the mechanician for the teacher. There is a tendency even among educational leaders to cease reading good literature, history, and philosophy and to confine their reading and thinking to the problems of their profession. The teacher cannot afford to neglect the larger views of life and the finer emotional tones which result in part from reading the best literature that the race has produced. The teacher cannot afford to stop playing, for when he ceases to play he ceases to live normally. Youth plays, and the teachers of youth should play.

SUGGESTIONS TO TEACHERS AND STUDENTS

1. Make a study of high schools which are attempting to develop a comprehensive program of recreation. Admitting that high-school fraternities are undesirable, what should be substituted to meet the needs of the congenially minded high-school students to associate? What is being done to solve this problem?
2. How should the study of subjects elected for avocational and cultural purposes differ from those elected for vocational or professional purposes? How may students electing the same subject for different purposes be successfully taught in the same class?
3. What is meant by the statement that "Students should play more on the higher levels"? Describe the essential characteristics of the personality of a successful teacher. How may a good personality be developed?

CHAPTER IX

BRIEF SURVEYS

These surveys show (1) the social background of high-school instruction and (2) examples of small city and town high schools undergoing processes of redirection. They were made before the war. Very few school and community surveys have been made since 1916. Certain portions of surveys reproduced in this chapter, even though they were made before the war, illustrate the essential elements required in programs of redirection of high-school instruction.

I. SURVEYS SHOWING THE SOCIAL BACKGROUND OF HIGH-SCHOOL INSTRUCTION

Prp. 16, 912
(1) *Small Manufacturing Cities: Leavenworth, Kansas, as a Type.*¹—Every institution has its social background. If an organization is to be effective it must not only be adapted to the end in view, but it must be adapted to the people who are to run it. The school is an institution which has been created by society for the definite purpose of training children to take part in the activities of adult life. Any scientific study of a school system, therefore, must be based upon an analysis of the social conditions into which the student is likely to be graduated. Before making a detailed study of the Leavenworth schools, then, a general view of the community is important.

Leavenworth, Kansas, is now a city of about twenty thousand population. It is picturesquely located on bluffs

¹ Walter R. Smith, in the "Report of a Survey of the Leavenworth Public Schools, Leavenworth, Kansas." Published by the Kansas State Normal School, Emporia, 1915.

overlooking the Missouri River, twenty-eight miles above Kansas City. Its topography, consisting of rolling hills extending back from the river, is unusually favorable for the development of beautiful home sites and lends itself readily to landscape gardening. These features, as in most western towns, however, have not been fully utilized.

Its population and industries are varied. A number of American elements have united with a variety of foreign immigrants to make a composite population unusual in a mid-western city. Manufacturing, mining, agriculture, and railroad and mercantile interests all contribute to a complex economic and industrial life. In addition, large national and state institutions are located on its borders and greatly influence its life. Altogether, it is an interesting city for observation and study along economic, social and institutional lines. It not only presents the ordinary phases of life in a small city, but furnishes many unique features; and its complex nature creates larger social and educational problems than are found in most cities of its size.

The first house was erected on the site of Leavenworth in 1854. The earliest village organization took place one year later. Its growth into a city was very rapid up to 1870, but since then its population has remained comparatively stationary. The following table shows the population at different dates:

1860	7,429
1870	17,873
1880	16,546
1890	19,768
1900	20,735
1910	19,363

Economic Foundations.—Three things led to this early growth: First, it was a river town, and access to the Eastern world was by boat. This made the obtaining

of supplies easier than for most neighboring towns and favored more rapid growth. Second, in 1832, a government post was established on its borders, and later it became a point of departure for many of the wagon trains headed for the Far West. This made it an outfitting post, calling for stores and other commercial enterprises. An evidence of this demand may be seen in the Planter's Hotel, now a large apartment hotel, which in its day was the most palatial on the river above St Louis. Third, it was located in a rich agricultural region, which formed a substantial basis for permanent growth.

Two of these three features remain to the present. The paralleling of the river with railroads undermined the river traffic just after the Civil War, but the development of agriculture counterbalanced this loss. Moreover, the federal government not only retained the Leavenworth military post, but added a federal prison, a training school in military tactics, and a soldiers' home for aged and disabled soldiers. The state also established at Lansing, just south of the city limits, its State Penitentiary.

But the above-mentioned features have not been the only, or even the chief, economic features of the Leavenworth of later years. Manufacturing has long been and remains her largest source of wealth. Factories were established at an early date, and flourished. For several years it seemed Leavenworth was to be the leading city of the region, but several conditions led to the supremacy of Kansas City. A number of Kansas City enterprises were started in Leavenworth, but later business advantages led to their removal to the more rapidly-growing railroad centre.

Unique Features.—The most unique feature of Leavenworth is her state and national institutions. These institutions have influenced the city in many ways. In the first place, they have been an unfailing source of

wealth, providing a demand for a variety of agricultural, manufactured and mercantile products.

In the second place, they have been a legally-demoralizing force. This is inevitable where large bodies of men congregate and live under a divided governmental authority. The soldier element, whether from the army post or from the soldiers' home, look primarily to the federal government for control and have a tendency to disregard local government. They form an unruly civic element, and in Leavenworth, as in most places, they have succeeded in getting large immunity from local officials. Such a large number of idle or partly idle men with a little ready cash to spend are certain to be riotous at times, and create a demand for amusements of the lower sort. Pension day for three thousand old soldiers is apt to be a jubilation. The writer was informed that, as was to be expected, the old soldiers were "seldom arrested for offenses that would land the ordinary citizen in the lockup." The same was true of the younger soldiers to a lesser degree.

The fact that such a large number of persons are partly exempt from the law has a reactionary effect upon others. Unenforced law undermines respect for law, and discrimination in favor of the soldier element doubtless has some effect upon other citizens.

The third effect of these state and national institutions is to weaken to a degree, local civic responsibility. Inquiry as to the reason for a lack of city parks brought forth the invariable reply that the government reservation to the north, and the soldiers' home to the south, were beautiful parks. Show places for visitors were not needed. Concerts at both the above-mentioned places were numerous and free. They were easily accessible. So the only reason for city parks was for playgrounds for the children. It was freely admitted that so many things had been provided by the state and national government that

one of the chief virtues asked of a legislator or congressman was the ability to secure these favors. Such an attitude is in line with universal human nature and makes local civic virtue a plant of slow growth, requiring much laborious nurture and scientific cultivation. Thus, there is found a difficult political, educational and religious situation.

There is some evidence, also, that the commercial value of these institutions affect the spirit of business enterprise. The writer was told that the ordinary demands of these institutions are so large that the usual reaching out for new business, advertising, and the hustling spirit are not so necessary as in other places. The same amount of business can be done with less energy than elsewhere, and consequently competition is less keen and inspiring to ambitious effort.

Industries of Leavenworth.—Another general factor in Leavenworth calls for analysis. As before stated, it is a manufacturing town. Three large furniture factories, a stove factory, a saddlery and harness factory, agricultural machinery factories, amusement machinery factory, box factories, a packing house, several large flour mills, bridge and structural iron works, many smaller factories and numerous jobbing houses exist. Altogether there are seventy-nine manufacturing plants, employing over 1600 workmen, with a capital stock of \$3,111,000 and producing an annual output of nearly \$5,000,000. They have large pay rolls of both skilled and unskilled men and women. There are likewise coal mines. Formerly three large ones were operated (two at present), besides the one at the Kansas State Penitentiary. They vary greatly in the amount of work offered at different times and seasons. Their pay rolls are large but uncertain, and they assemble many people who naturally create hard school problems. Members of the Survey Staff saw several boys,

who ought to continue in school, sometimes accompanied by their parents, asking for age permits that they might drop out of school and go to work.

These two industries, mining and manufacturing, necessarily lead to the importation and development of a large day-laboring class. Extreme economic planes are inevitable. The employing class and the working class in these occupations are far apart in standards of living. They clash in many of their ideals. Where these elements form as large a portion of the population as they do in Leavenworth, mixed civic aims, varied political motives, and uncertain institutional conditions exist. Social, political and cultural organization is difficult; there are likely to be found a social aristocracy, the political boss, and a certain amount of cultural cant. Evidence of the existence of some of these things may be found in many of their institutions. The officers at the fort, the old families, and ambitious wealth have formed an exclusive social atmosphere. Many of the negroes, some of the laboring elements, and party fealty have made control by bosses easy. Cultural agencies have been largely for the few. During the whole generation from 1870 to 1904 the public High School charged all students a tuition fee.

Racial Complexity.—As the previous analysis of the industries of Leavenworth would indicate, the population is varied. The early settlers were of the usual eastern Kansas type. Many crossed over the border from Missouri. The regular stream of westward migration from the Northwest, East, South, and Middle West left its due portion. It is not a New England settlement, nor is it southern, nor foreign. No one element of the population dominates. Agriculture, mercantile business and the usual city industries are mainly controlled by the American and the better foreign stock. Moreover, the city is now

getting old enough to be strongly moved by the "native-son" element.

Above this native substratum is a great variety of foreigners and their descendants. Large German, English, Jewish and Polish elements are present. Many Italians and eastern Europeans also are found. It is to be noted, however, that Leavenworth was very fortunate in getting a high class of immigrants. The negro population is large for a Kansas town, comprising 12.79 per cent. of the total. This large element has led to the segregation of the negroes into separate schools until the high school is reached. The last census report gives the following figures for the distribution of the population according to race:

Native white, native parentage	8,973
Native white, foreign or mixed parentage ..	5,444
Foreign-born white	2,464
Negro	2,477
Indian, Chinese and Japanese	5

FOREIGN-BORN WHITE OF LEADING NATIONS

Austria	154
Canada	74
England	174
Germany	1,221
Ireland	342
Russia	165

While this diversity of race stock does not create the serious problems found in the foreign districts of our large cities, it does create problems not generally found in neighboring cities. The foreign immigration was mainly of an earlier day and of a superior class, so that practically all the children now speak English. But divergent ideals and different standards of education complicate the educational situation and explain the rather large percentage of illiteracy. The percentage for the whole state of Kansas in 1910 was 2.2, and for the urban popu-

lation it was 2.4. Over against this is Leavenworth's 3.3 per cent. The illiterate male of voting age comprise 2 per cent. of the total for the state, while in Leavenworth they comprise 3 per cent. of the total.

Social Organizations.—Institutionally Leavenworth shows the effect of the complexity of her problems and the influence creating them. Social organization is difficult. Twenty churches serve the twenty thousand people, except for half a dozen or more negro churches. There are four Catholic churches—German, Irish, Polish and negro—two Jewish, two Methodist, and one each of the following denominations: Presbyterian, Congregational, Christian, Episcopal, United Brethren, Lutheran, Evangelical, Baptist, Independent, and Christian Science.

In addition to the churches, there is a strong Y. M. C. A. It has an adequate building of its own, with a secretary, a physical director, and an annual budget of \$6000. Its active membership is 310, and its work varied. Within the last year the Y. W. C. A. has been organized. The promise is large, since it has enrolled 650 members, has just employed a full-time secretary, has started various enterprises, and is planning a well-equipped building for the near future.

The public library is elegantly housed in a Carnegie building and well cared for. It has an annual budget of about \$6000, a collection of 21,658 books, and an annual circulation of over 66,000. It is doing a variety of community services and working well with other institutions. Special collections of books are lent to the elementary schools and issued from the school buildings. Some of the churches have libraries, and likewise the separate schools.

The fraternal organizations of the city are of the usual type. The Elks have an elegant club house, and there is a well-equipped Turnverein. The labor organizations

are also strong. But there is in general an apparent lack of recreation facilities of an organized type. Theatres exist, and "movies" galore, but they have been without adequate supervision. Plans to improve the supervision are started and coöperation with the schools is being fostered. Sociability is mainly along class lines. This lack of organized amusements only lends strength to the unorganized and illegitimate type, and makes law enforcement more difficult. Two small supervised playgrounds exist. They are treated as matters of charity, with but small interest or attendance. In the heart of Leavenworth is a population of 10,000 people with not a single space larger than a town lot. Social, cultural and civic clubs exist, but not in profusion. Two women's clubs are affiliated with the Federation of Women's Clubs, and a Woman's Civic League is just awakening to its larger possibilities. Commercial and business clubs also exist. But the varied interests, ideals and occupations of the people have prevented elaborate social and philanthropic organization and rendered ineffective many of the existing efforts at coöperation in social and civic affairs.

Schools.—The school interests and facilities are varied. The school census of 1913 indicates an eligible school population of 6649. This had remained practically stationary for a quarter of a century. A mixed population and native conservatism have led to a large demand for private and parochial schools. Consequently the public schools are not so large as the size of the city would lead one to expect. For several years the average attendance at the parochial schools has been above one thousand and that at the public schools three thousand.

Leavenworth has not been as liberal in supporting her public schools as the other Kansas cities of the first class. For years the tax levy for the support of schools has been beneath that of her sister cities. The school levy

for cities of the first class for a period of ten years has been studied, and while not all of the information is obtainable, enough is at hand to show that Leavenworth ranked lowest until the last two years, and is still below the average.

Not only has Leavenworth failed to tax herself liberally for the maintenance of her schools, but half a dozen years ago she voted down a bond levy for needed additions to the high-school building. Later the school board raised the taxes and built the additions, but with many forebodings, and the present very moderate levy causes much public dissatisfaction.

A less tangible proof of a lack of active interest on the part of citizens of Leavenworth in her public schools appears in the small number of visits to the schools by the public and a lack of support for school enterprises. This was repeatedly brought out in conversations with the public, with the teachers, with high-school students, and was reflected in the recently-organized parent-teacher associations. Personal politics in the shape of a quarrel between a former superintendent and a high-school principal had been allowed to divide the city into factions. For years party politics were allowed to enter into the election of the school board by automatically dividing the members to be chosen between the dominant parties. The provincial and inbreeding spirit has allowed unnecessary preference to local applicants for teaching positions, and favoritism instead of merit has had too much influence in the selection of teachers until very recently.

Happily, most of these evils are eliminated or are in the process of elimination. Leavenworth is becoming willing to pay for good schools by liberal taxation. School interest and parent-teacher coöperation are being fostered. Personal and party politics have largely disappeared in school matters. Teachers are being selected

on their merits, paid a fair salary, and are being given friendly social recognition. If Leavenworth schools are going to continue to improve, public interest, public support and public coöperation are necessary; and these agencies must be held as responsible for that improvement as the school authorities themselves.

Community Spirit.—One other phase of the city needs to be analyzed, and that is its general community spirit. That it is a cosmopolitan community follows from its varied industries and heterogeneous population. But this cosmopolitanism is of a mixed type. Class lines are evident in Leavenworth. This social stratification makes church work, clean government, commercial coöperation and school democracy more difficult than in a more homogeneous community. Some radical elements and some progressive elements are found; but in the main, conservatism dominates. It is quite un-Kansan in this particular. New movements, new parties, new ideals, and all sorts of fads make headway slowly. Ritualism in religion, formalism in education, party regularity in politics, negativism in amusements and respectability in society are necessarily in danger of overemphasis. There is evidence that in the past they have been too influential; but along each of these lines improvements may be noted.

As previously pointed out, a high standard of civic virtue is not to be easily obtained in such a mixed and uncertain environment. The number of temporary and irresponsible residents is so large that the ordinary amount of civic conscience in the responsible native elements can scarcely be expected to secure adequate sanitation and cleanliness in many quarters of the city. The spring clean-up day is needed oftener.

Leavenworth is well paved and the streets seem to be well cared for; but in the outlying districts and the draws and the unused lots neglect is apparent. The river bluffs

are picturesque and might well be utilized for parks and playgrounds, to the benefit of large numbers of people. A general campaign on the part of her newspapers and organized clubs to develop a spirit of coöperation and local pride, based upon real accomplishments, would aid much in the civic reawakening which is at present visible in many parts of the city's life.

Occupational Analysis.—An excellent occupational analysis of Leavenworth was made by Superintendent M. E. Moore of the Leavenworth Public Schools. It is a type of work that ought to be done in many cities. It, together with a study of the causes of elimination in all grades, should form the basis for a re-examination of the curriculum and its administration in both the elementary and high schools. This should be done with the idea of better adapting them to the pupils while in school and better fitting these pupils to take an effective part in the industrial and social life of Leavenworth or some similar community after leaving school.

An analysis of the occupations shows that 286, or 2.9 per cent. of the total number, may be classified as professional workers requiring elaborate educational preparation; 87, or .9 per cent., are business managers needing a thorough commercial education; 1963, or 20 per cent., are commercial workers who need practical commercial training; 2204, or 22.4 per cent., are skilled industrial workers who need first-class industrial training; 3419, or 35 per cent., are unskilled workmen who need at least a practical elementary education; and 1866, or 19 per cent., miscellaneous.

The Educational Program.—The state advancement of any educational system may be measured by its relation to these three standards, but the test must be specifically applied. An educational system may be open to all and yet not be taken advantage of by all. It may offer useful

studies and still not prepare all to elevate their plane of living. And that is exactly the condition of our public schools. They are open to, yet all do not enter. The law tries to compel all to gain the rudiments of an education, yet 8.4 per cent. of our voters are illiterate. Our schools try to be useful, but many students drop out to get a more practical training for advance in the business world.

Other parts of this Survey have dealt with other phases; but this part will be confined to a discussion of the wider outreaches of the schools—the intimacy between the school as at present organized and other community interests. Along no other line do the above-mentioned tests offer less basis for local pride than here; and in no place are there more things remaining to be done. It is the judgment of the whole Staff that there is a wider gap between the Leavenworth Public Schools and the public than in most progressive cities. Certainly it is wider than it need be, or than is for the best interests of both the schools and the city. If the schools are to reach all and to train all for citizenship, and to enable all to earn an honest living, it is necessary for all to get together in closer educational relationships.

In order to deal definitely with the subject it may be well to consider these relations under five heads:

1. School extension work.
2. Public use of the school plant.
3. Relations of school and patrons.
4. The school, the home, and the church.
5. The school and business.

School Extension Work.—Three lines of extension work are being done in many cities. There is need for all of them in Leavenworth. The first one is the offering of graduate electives. This may be done in either of

two ways: If facilities were adequate a regular year of graduate work might be organized. It would be too much to expect at present that if the high-school curriculum is reorganized a year be added to each of the various courses. But there are always students who might be willing to take another year of work in order to get certain studies they were unable to elect during the regular course if definite announcement could be made that they would be provided for. This is being done already in the normal-training course, and might be extended with very little cost. The other plan is to allow part-time attendance for special work like domestic science or art, manual-training, music, bookkeeping, etc. This has already been done to a limited extent in domestic science, and has been helpful not only directly, but indirectly in fostering the parent-teacher associations. One or both of these plans could be expanded and definite provision for extension work could easily be made, thus serving and cultivating a wider public.

Night Schools.—The second phase of extension work is the establishment of night-schools. Night-school work has passed definitely beyond the period of experiment. It has become real. The field was first cultivated by correspondence, business, trade and professional schools. But their success led to a demand for publicly-supported courses supplementing school work. In almost every city where such opportunities have been offered the response has been astonishing. Leavenworth's near neighbor, Kansas City, Kans., has a total night enrollment of 2300, and Kansas City, Missouri, about 8000.

Night-school work is peculiarly inexpensive because the equipment is already at hand. The buildings and apparatus have been acquired for the day schools. They are also heated, and almost the whole expense is for lighting and teaching. Many teachers are willing to give extra

service for very little extra pay. Moreover, night-school work is especially rewardful from the fact that students are in earnest and many of them are struggling with poverty. They have found the need of additional education. Hence the discipline feature is eliminated and the teachers burden lightened.

Night schools also have a valuable reactionary effect upon day schools. Since the students are in earnest, and since they are more mature, their actual needs are looked after. They have found by experience what is most valuable in education, and by pleading are able to influence the pedantic pedagogue to eliminate the impractical and unnecessary. Leavenworth can afford them for their pedagogical effect upon the day school.

But that is not their most valuable contribution. The schools are paid for by the public, and the public wants to be served. The fact that a boy has to leave day school and go to work is no proof that he is unworthy of a public education. Nor because he makes a mistake and voluntarily quits should he be deprived of advantages if he later desires them. There is nothing sacred in the usual hours for obtaining an education; and if they can be extended at small cost it is abundantly worth while.

Leavenworth is in more need of night schools than most cities of its size. It is a factory town, and the employment the factories offer lures young people to leave school earlier than would the work in less highly organized and mechanized industries. The laboring population is large, and the sons and daughters of laborers drop out of school to add their earnings to the family exchequer. And since the employment they secure is highly differentiated work and may not call for all the kinds of energy youth provides, some can pursue work in a night school without appreciably lowering vitality and still earn their wages.

But the need of night schools is not all theory. In-

vestigations pursued by the High School Boys' Club present facts. A Kansas law provides that a board of education must establish a night school when it is petitioned for by the parents of ten children who desire to take advantage of it. Practically double that number of signatures have been secured, and the night school will doubtless be started next year. If properly organized and advertised, it is sure to be an instantaneous and continuous success.

The Vacation School.—The third line of extension work needed is the vacation school. During three months of the year Leavenworth has over four thousand school children with practically nothing to do. They are not vagrants because society expects little of them. But they have no occupation. In the old days of gardens and elaborate household duties and a home that provided manual training and occupational duties, this was not such a serious thing. But now the father is in the store or office or shop and the mother is busy. The child is free and generally idle.

Several citizens were asked what these four thousand children did. There were two answers: "I don't know;" "They are on the streets." This was evident, even in winter time, because diligent search failed to reveal adequate play spaces. Public parks were absent for the reasons previously stated. As shown elsewhere, the school grounds are mostly small and cramped. Private charity has provided two playgrounds. One man bought the apparatus. A few charitable-inclined women raised the money for running expenses. Last season's budget of expenses for these two playgrounds totaled only \$180. One was adequate in size and equipment, but was located in a sparsely settled district; the other was microscopic. The result was an average daily attendance of about fifty-

five children. Where were the remainder of the four thousand?

This showing indicates the vast field open to the Leavenworth schools. Those four thousand children should not be objects of charity. The public not only owes them an opportunity for health-giving play, but it owes them the same opportunities for proper development during vacations that they get at other seasons of the year. It need not, and probably ought not, generally to be the same sort of training; but it ought to be as definitely supervised as during the school year. Wherever this summer work has been undertaken it has at first been tentative, then real; first charitable, then public. Supervised play develops into supervised work that is educational.

This work in Leavenworth should doubtless follow the usual line of evolution. The charitable stage has been useful, but it can not go far. It is to be hoped that this charitable spirit will take the direction of educating the public to the possibility and need of civic control. And the best means of reaching the problem is through the schools. Some of the school grounds are adequate for a beginning. The Morris School ground is large enough and is well located for the purpose. The Maplewood and Sumner grounds are also large enough to be useful, if the "keep off the grass" idea can be eliminated from the latter. No possibilities are in sight in the most "respectable" district, but doubtless a centrally-located playground could be obtained. Land for school gardening could be rented cheaply.

One trained supervisor might be obtained by the school board. Assistants ought easily to be obtained for the present from primary teachers located in Leavenworth who would be glad of the training provided by an expert. *Plays and games* of a competitive and educational sort

should be used, but generally the most interesting features come in such things as clay modeling, manual-training work of an ingenious kind, folk-dancing, swimming where possible, nature-study trips, and actual gardening for profit. Apparatus and supplies are useful, but wholly secondary to trained supervision. Once undertaken, this work is never abandoned, and year by year becomes more efficient and helpful to the general education of the child.

A less worthy but frequently more appealing motive comes in the effect of vacation work upon delinquency. Wherever supervised play has been tried, it is found that the work of the juvenile court is greatly reduced. Tests in Chicago, Buffalo, Rochester, Washington, New York, and many other cities, show that the saving in the handling of juvenile delinquency goes a long way toward paying the costs of this supervised play. And, properly handled, it is only slightly less educative than regular school work.

Public Use of the School Plant.—The second phase of community-school relations is shown in the use made of school property. School buildings are paid for and owned by the public. They are in general centrally located for community purposes. They must be kept heated, and generally are lighted. Extra expense for janitors' services and incidentals is slight. The school building thus becomes the best place for a community social centre.

One looks in vain for any organized social centres in Leavenworth. Not that they are not needed, for the conditions are peculiarly favorable to the accomplishment of a real mission through them. Organized recreations in some parts of town are few. Temptations are numerous. Unsupervised amusements are always dangerous. And every opportunity that can be offered by the home, the church and the school to direct leisure time will not be too

many. These are the three organized institutions best fitted to cope with evil influences, and no one of them should be recreant to duty. Every evening spent in the schoolhouse under proper surveillance is a disqualification for pleasure in the under-world.

A variety of things can be done to make these evenings worth while. A reading room can be established with books and old magazines that will be gladly donated. Picture shows, talks, civic discussions and debates, literary societies and social evenings can be organized. Parents and young people, as well as the children, need elevating entertainment and educational stimulus. All these things will tie the public to the schools. They will make discipline easier, and can be used to foster a higher type of local pride and civic responsibility—much needed in Leavenworth. The two schools for colored children and some of the others in the more remote and poorer districts really need these additional advantages for social, cultural and recreational purposes. These things are being done in many places, and the Survey Staff wish to urge that some of these centres be organized in Leavenworth without delay.

Relations of School and Patrons.—Four parent-teacher associations, representing six of the schools, have been established during the last year, and others are in prospect. Those in existence are doing good work. Better relations are being established between parents and teachers. Misunderstandings are being ironed out and the home and school are realizing more fully their dependence upon each other. The local associations have their regular monthly meetings, and in addition come together for occasional joint meetings.

Three members of the Staff attended one of these local meetings. Each of the members spoke for a time and then listened to an hour of lively discussion. It was pre-

sided over by a member of the Board of Education. Questions of safety from fire, building improvement, closer sympathy and better coöperation between parents and teachers were discussed freely. A specific result of this meeting may be mentioned to illustrate the possible value. A commendable effort is being made through the monthly report card to get parents to grade their children on home conduct. On the back of this card grades on the following points are requested: (1) Home study; (2) home duties; (3) obedience.

One parent misunderstood and was incensed with the query, and wrote on the card, "This is my business." But after hearing the discussions and getting the point of view of others, he offered his complete coöperation with the teacher and principal in the future. Such things make the work of both teacher and parent easier and more effective.

This coöperative work also has more remote effects. School equipment and buildings depend upon the citizens' willingness to vote taxes. This willingness in turn depends upon knowledge, and every successful parent-teacher organization brings more fully home to the citizen the needs of the schools. A needed bond issue was voted down half a dozen years ago, although the school's bonded indebtedness was small, because of a lack of this public sympathy and knowledge now being fostered. In the constructive program necessary to put the Leavenworth schools to the front complete coöperation between citizen and teacher is fundamental and must not be neglected.

The School, the Home, and the Church.—Another phase of school and community relations is the more vital connection between the school and the home. This relation should not only be sympathetic, it should be organic. Many schools have experimented along this line until a definite coöperative basis has been established. All skil-

fully-directed and eagerly-pursued work is educative. Scientific cooking or artistic housekeeping in the home is as valuable as it is in the school—even more valuable in educating the girl for her future duties in life. The same is true of accounting, bookkeeping, manual training or other careful and expert work. There is no reason why they should not be given credit toward graduation in school course. Wherever such a practice has been properly carried out it has had the quadruple effect of making the school work more interesting and effective, holding the boy or girl longer in school, elevating the standard of home life, and tying the home more fully to the school.

What is true of this correlation of school and home work is equally true of other institutions, especially the church. It would scarcely be less valuable to the school than it would be to the church to have the Sunday school, Y. M. C. A. and the Y. W. C. A. and the young people's societies of the church linked with the public-school work. It would put more seriousness and effort into the church work; it would put more true Christianity and fellowship into the school work, each benefiting by the influence of the other; and the student would get broader ideas of the oneness of all life and higher ideals of complete living and community responsibility. The Leavenworth social atmosphere, as pointed out in the opening chapter of the Survey, is in need of the civic spirit and coöperative effort that might be fostered by cultivating the democracy and fellowship and mutual aid of the school, the home and the church.

The School and Business.—The school and the business world have been far too contemptuous of each other. The school has wrapped its mantle of superiority about itself and looked disdainfully upon business as a materialistic affair. The business world has scorned the scholar, *pitied his self-abnegation*, laughed at his pedantry, and

condemned the impractical schools. Each has gone his way and neglected the other, and both have suffered thereby.

As business becomes more complex it demands young employees of greater training and adaptability. The schools should supply these. But they can not be supplied without the coöperation of the business world with the schools. On the other hand, the schools have suffered from this lack of coöperation because they have been unable to practicalize their work enough to hold the students. The great dropping off between the first and second years of the high school, amounting to 37 per cent. in Leavenworth, is largely due to the lack of association of first-year studies with real life. Miss Jean M. Gordon states truly that the cause of the large percentage of students leaving the schools before they have finished the twelve years of work offered, amounting to over 90 per cent., is the schools themselves. Boys and girls, young men and young women, must not only be interested in their studies, but they must be able to see wherein these studies will be useful in life, before they will take them. We older persons, in our supposed larger wisdom, may decide that it would be best for them to pursue a certain course of studies arranged; nearly nineteen out of twenty in the cities of the United States will not do this. In Leavenworth about nine out of every ten are not doing it.

What, then, you may ask, is to be done? Two things at least must be done before any large decrease can be made in this enormous school mortality. The school studies must be brought into closer relations with the office and shop, and the office and shop must be linked with the schools in the actual teaching of the various branches of study.

This is being done by our most progressive school systems in various ways. Credit is given in the schools

for outside work done either in business or in other institutions. The commercial course should be arranged so that credit may be given for practical work done in book-keeping, typewriting, stenography, and clerical work of various kinds. Arrangements may be made with business firms to use advanced students part of the day or week or month while they are in school the remainder. This will give the student some practical apprenticeship experience that will enable him to earn a respectable salary immediately on leaving school.

The industrial course likewise offers large opportunities along this line. Tradesmen, after they have had the experience, are glad to get part-time helpers at little cost. The factories in Leavenworth offer an unusual opportunity for this sort of development. A plan similar to the ones so successfully used in Cincinnati, Boise; Beverly and Fitchburg, Mass.; Lewis Institute, Chicago, and a large number of other schools, might be worked out. The process of tying the school work to the shop should proceed slowly and cautiously, but should none the less be started and developed as rapidly as possible.

For the student who is planning a complete college education and wishes to pursue the old cultural high-school course in preparation for a professional career less needs to be done. In the past the high school has been arranged largely for him and he has used it. But even Leavenworth has plenty of professional men who failed to take all of the high-school work offered, but would have taken it if it had seemed more practical to them at the time they dropped out. English, mathematics, history and civics, economics, physics, and chemistry—all the old-line studies—should be worked over, are being worked over, to make them applied studies. The civic and industrial and institutional life of Leavenworth is rich in laboratory materials for making these studies real and vital and

practical for the student; and the reciprocal effect upon those institutions of turning out large bodies of trained young people who understand the needs and problems of the city would aid in building up a greater and better Leavenworth of the future.

Need of an Employment Bureau.—One other practical phase of this subject must be mentioned in closing. The high school has as yet no definite organization for aiding its graduates in securing positions. Seventy-nine per cent. of them do not go to college. Most of this seventy-nine per cent. go to work. An employment bureau can be run from the high-school principal's office with little expense. Business firms of the city ought to be, and doubtless would be, glad to favor local talent in securing employees. A record of each graduate's qualifications and the opinions of his teachers regarding his character and industry could be on file. Such an employment agency would be useful to both the graduate and the public, and would secure some of the greater intimacy between the schools and the business world which is so much needed in these days of strenuous competition.

Summary of Recommendations.—1. That every effort be made to close the wide gap which is quite conspicuous in Leavenworth between the schools and the public.

2. That other students besides those taking the normal-training course be urged to return for a year of graduate work in the high school, to be taken from studies not elected during their undergraduate career.

3. That home-makers and other average men and women be invited to elect specific work that will aid them to become more efficient citizens.

4. That night schools be organized and adequately provided for, to begin work at the opening of next school year.

5. That in connection with the juvenile court and

the cultural and civic clubs of the city, a trained supervisor of playgrounds be employed for the coming summer to organize the people and facilities already at hand, and thus make a real beginning in the use of the summer season as an aid rather than a hiatus in educational work.

6. That social centres be established at the Morris School, the Maplewood School, and such others as can be used. Also that social and industrial centres be established at the Lincoln and the Sumner schools.

7. That every effort be made to maintain permanently the present enthusiastic parent-teachers' associations, and that their work and interest be widely extended.

8. That arrangements be made with business men to use part-time students in the commercial work and with factories and tradesmen to do the same for students in the industrial course.

9. That girls be given school credit for work properly done in the home. That the same privilege be extended to boys where the work may be considered constructively educative. Also that arrangements be made with the churches to establish actual study classes, effectively taught, for which school credit shall be given.

10. That an employment bureau be run from the high school principal's office to secure work for graduates and to enlist the coöperation of the business men of the community in giving the graduates a proper start in the business world.

(2) *Seaport and Fishing Towns: Fort Townsend, Washington, as a Type.*²—Present conditions in education prove that the school can no longer be regarded as the complete instrument of education. Children are influenced, *i.e.*, educated, in part by many elements of community life that lie entirely outside the schoolroom. A

² By J. K. Hart, in *Survey of Port Townsend Public Schools*, Washington, 1916. Published by the University of Washington, Seattle.

survey of the educational conditions in a city, therefore, cannot deal merely with elements that lie entirely within the school. It must begin with an attempt to discover just what the larger educational problem of the community really is.

This problem must be seen, not from any purely traditional point of view, but from the standpoint of the whole educational need of the community, which will include, alike, the children and the adults; and it must take into account the efforts of all sorts that are being made to meet those needs and the wider developments that must take place, whether within the traditional institutions of education, or within the wider plans of the community itself to provide for its own growing life and interests.

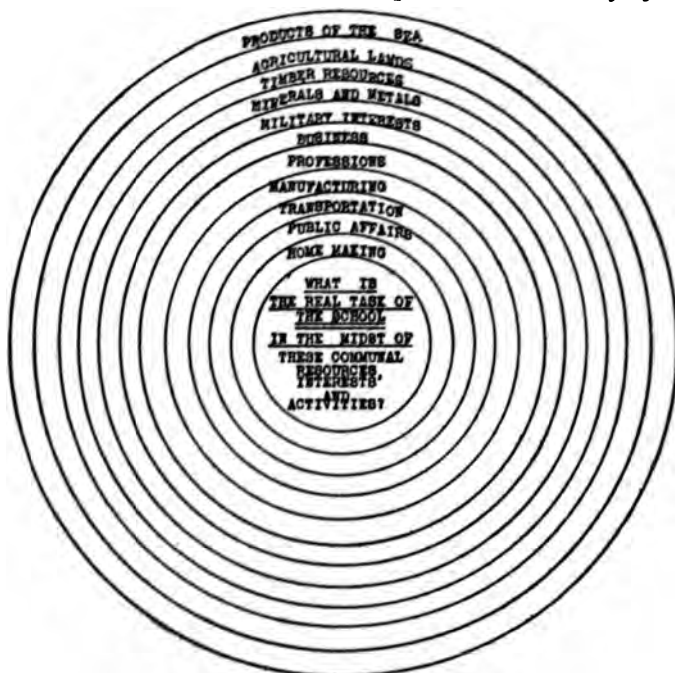
We may for the purpose of this discussion, divide the social elements that are influential in education along the following lines:

- a. Physical resources and the industries based upon these resources by which the actual economic future of the community is assured.
- b. The population and the immediate problems growing out of the development of the city on its human side.
- c. The traditions and local history that tend to determine the modes of thought and life in the community.
- d. The political and social life in the community.
- e. Provisions outside of the school for the recreation, play, and amusement of the children and community.
- f. The general level of intellectual interests in the community.

All these elements and conditions tend to determine the attitude of the community toward its most vital problems. And the school and the work of the school must largely be organized with reference to what may or may not be the condition along these lines. We must,

therefore, consider the conditions existing in Port Townsend under these various heads.

a. Port Townsend is the county seat and general commercial centre of Jefferson County and its industrial future must be considered in reference to the county unit; or at least, in reference to that part of the county lying



Educational Resources of the Community.

east of the Olympics which, in reality, is tributary to the city. The above chart will show something of the way in which Port Townsend is surrounded with a variety of economic resources and industrial opportunities. The order in which these items appear in the chart is largely arbitrary, but based somewhat upon the actual situation. The outer four represent basic raw materials.

The possibility of developing these various basic resources lies largely in the future. If we take the first, the offerings of the sea, it is obvious that the development of these raw resources has only just begun. What will be done in the way of further development at Port Townsend will depend very largely upon the attitude of the people. It is true we are everywhere subject to the belief in the supremacy of "capital." But paralysis of local initiative cannot exist forever.

The chart is sufficiently suggestive to set forth the magnitude of the problem. It is enough to call the attention of the teachers and intelligent citizens of the community to these broad lines in which possible industrial development may reasonably be expected to take place.

It may be necessary, however, to justify the presentation of this chart in an educational survey. This can be done in the following ways: All industry may be looked at from an educational point of view. Before there was a school, education went on in most of the industries themselves. It is a false view both of industry and education to suggest that the development of the school has released industry from its educational obligation; or that the school cut off from the industry of the community, can perform its educational functions. Under such conditions industries lose their real significance not merely to feed and clothe the community, but to give it lasting means of life, become discouraged and eventually decay; and schools lose their vital contact with the world and become abstract, bookish, unsocial. A better school in a community is possible, usually, only to the extent that the industrial life of the community develops new activities and new motives; and the industrial life of the community is likely to run along in habitual grooves unless the best intelligence of the community stimulates and helps to organize that industrial development.

The great need of the educational system of Port Townsend at the present time is the recognition and development of the mutual interrelationships of the businesses, industries and economic developments, and the school system.

The accompanying chart puts the school at the centre, surrounded by possible lines of industry. At a later point in this survey another chart will be presented, showing another phase of the relationship between the industries of the community and the school.

There are, however, a few items in this industrial situation which should be discussed in some little detail. To present all of them in detail would, of course, require too much space. One of the most important of the items in the chart is the problem of the agricultural resources. The U. S. Census for 1910 gives some definite statistics for Jefferson County and Port Townsend. These figures tell an interesting story. They are as follows:

Population of Jefferson County, 1910	8,337
Population of Jefferson County, 1900	<u>5,712</u>
Increase in decade	2,625
Approximate land area of county, acres....	1,118,080
Land in farms in 1910, acres	31,518
Land in farms in 1900, acres	<u>29,289</u>
Increase in decade in farm land, acres	2,229

It will be noted that the increase of land in farms shows an average of less than one acre per individual increase in population of the county. That is to say, the population increase in the county seems to have been almost entirely in the towns, largely at Irondale and Hadlock, probably, though Port Townsend's population shows the following change:

Population of Port Townsend in 1910 ...	4,181
Population of Port Townsend in 1900 ...	<u>3,443</u>
Increase in decade	738

To show further the lack of development of the agricultural resources of the county it may be noted that in 1910 out of the total number of acres of land in farms in the county, 6554 acres were improved. In 1900, 6111 acres were improved. That is to say, during the decade there was an actual increase of 443 acres of improved land. In ten years 443 acres of wild land had been brought under cultivation. Of course, it will be said that Jefferson County is largely made up of inaccessible land, not fit for farming purposes; also that it is not the business of Port Townsend to develop the farm lands of Jefferson County; both of which statements will largely be accepted as true from a general point of view. All that is intended by means of these figures is to show that the educational development of the county seat will be conditioned and hindered by the lack of development of the industrial possibilities surrounding the town, chief among which is this one of agriculture.

One further comparison may be noted. The number of farms and farmers in the whole county in 1910 was 262; for 1900 the number was 212; an increase during the decade of 50. This small increase in the number of farms and farmers does not seem to have been occasioned by the natural unprofitableness of the industry, for the same table gives the following instructive facts about the increase of farm properties:

Value of farm properties in county for 1910 ...	\$1,975,980.00
Same in 1900	740,229.00
<hr/>	
Increase during the decade	1,235,751.00
Per cent. of increase	166.9

There is here no intention to overlook the fact that agricultural development in Jefferson County is extremely difficult, but the actual progress that has been achieved in the Chimacum valley; the success of the region known as the Chinese Gardens, and the statistics given above, all tend to show that there is room for further growth.

One further item in connection with this industrial problem might well be mentioned. One of the leading sources of income of the city of Port Townsend comes of its relation to the military end of the national government. Here are three forts with a total military population that averages more than one thousand, with a pay roll that runs up into the thousands of dollars per month. To be sure, most of the general supplies furnished the forts by the regular commissary and quartermaster's departments are purchased in Seattle; but a good deal of the incidental spending of the soldiers is done in Port Townsend; and this has tended to the development of those types of business which provide opportunity for the particular kind of spending that soldiers indulge in. One noticeable outcome of this is seen in the presence of many small businesses, not altogether unlike that carried on by the old-time army sutler. He was a sort of hanger-on of the military career, having little interest in the soldiers of the community beyond what he could make out of them.

Port Townsend, in its way, pays the penalty of being a military centre. A certain dependence upon the national government runs through all the interests of the town. It gives the place a little of the feeling that it has a sort of fairy godmother who will take care of those substantial industries based upon its own resources which in reality are both essential to the proper education of boys and girls of the community, and also furnish proper life outlets and vocational opportunities to the same boys and girls as they leave school.

Few places have such natural beauty of location and are surrounded by such tremendous economic resources as is Port Townsend; but the fever of old boom days has not been completely lost from the blood; the will to work *at the immediate* task is not fully present, and the presence

of the military post with its easy money tends to keep alive the feeling of a glorious past that will surely come again. In this Port Townsend shares a common belief of the whole Northwest.

Over against all these things, as a part of the definite education problem of the community, we may set the following tasks which are some of the real tasks of the city, considered as a normal community interested in its own industrial and educational welfare:

(a) How to recover completely from the old boom fevers and to take up quietly and seriously the new tasks of the new day.

(b) How to realize on these various resources of wealth now latent or only partially developed.

(c) How to make all these latent resources help in the education of the young and old.

(d) How to make these latent economic opportunities real social and educational opportunities, stimulating the young to real life careers, to a share in the constructive and productive tasks of the world.

(e) How to develop a community education system, including the schools, that will use all the community resources in the training of its young people and in the development of a higher and broader community program.

The most universal remark which one hears from the young people and from the old, too, is this: "Why should a young man remain in Port Townsend? There is nothing for him to do here." But, there must be something to do "here" if the town is not to lose its best life. Port Townsend is now playing a losing game; it is educating its young people for a life that they will lead elsewhere. Of course, that is an unselfish plan, but no community can afford to be drained of its best resources endlessly. The result will appear in disastrous fashion sooner or later.

b. A second major problem of Port Townsend is that of the population of the city on what may be called its human side. The population of Jefferson County, as has been true in the case of many other local communities in the Northwest, has had some rather strange ups and downs. The figures given in the 1910 census report are not completely intelligible. The statement is made that Port Townsend precinct, which is said to have been co-extensive with Port Townsend City, had a population, in 1890, of 5677. At another point, Port Townsend City is given a population of 4557 in 1890. If we take the smaller of these two figures as the correct one for purposes of comparison, we have the following striking shift in population:

In 1890	4,558
In 1900	<u>3,443</u>
A loss of	1,115 in the decade.

In 1910 the population had again risen to 4181, a gain for the decade of 738; with a net loss in twenty years of 377. These twenty years mark the period of the gradual subsidence of the old boom which was at its height about 1889-9. The ebb-tide was reached near 1900, and the city began to regain its old confidence in itself in the decade of 1900 to 1910.

Figures are not available for the growth in population since 1910. However, the percentage of increase in population in the decade from 1900 to 1910 was 21.4. If that same percentage was held in these succeeding five years, the population at the present time may be estimated as being 4678.

If we consider the composition and character of the population, we must rely upon general figures, as the census bulletins do not analyze for cities the size of Port Townsend; but, the figures for Jefferson County are given

and these may be looked upon as holding the average for Port Townsend also.

The mixed character of the population of the county may be shown by the following figures from the 1910 census tables, of people who were of foreign birth:

Austrian	54	German	283
Belgian	1	Greeks	4
French Canadian	24	Dutch	11
Canadian or other extrac- tion	331	Hungarians	9
Danes	75	Irish	131
English	218	Italian	87
Finns	50	Norwegian	267
French	25	Russian	21
Swedes	304	Scotch	89
Welsh	16	Swiss	23
		Scattered white	62

In addition to the above figures attention may be called to the 451 Chinese, Japanese and Indians.

In addition to the above figures attention may be called to the fact that there were in the county in 1910 a still larger number of people who, though they themselves were born in this country, were children of parents born in other countries.

A summary of population (not in detailed figures) gives the following facts with reference to Port Townsend itself:

Males	2,691
Females	1,490
Native white of native parents	1,917
Native white of foreign or mixed parentage..	1,224
Foreign-born white	969
Negroes	5
Indians, Chinese, Japanese and others	66
Total population in 1910	4,181

c. In its history, Port Townsend has traditions that run far back into the early pioneer times in the state. There are citizens still living in the city who had a stirring share in the early struggles to win a home for

white civilization on Puget Sound. The story of those earlier days has not been properly regarded and kept for the inspiration of the younger generations of to-day. (The school historians have a duty here.) The intervening boom times have filled the memory, controlled the imagination of the city and even blotted out the romance of the older story.

There is nothing more striking in the history of the Northwest than the romantic story of the boom in Port Townsend. A glimpse at the map, which marks the high tide of real estate advertising and industrial exploitation, shows the unlimited confidence which the people in those days had in the city and its future. The marks of the old street car lines still remain. The old paved streets in the business district on the tide flats, long since deserted and gone to decay, tell the story of an industrial dream that has vanished from the earth for the present. The location of the Court House is a lasting testimony to the change that has taken place, for when it was built it was near the centre of the city's activities. And the old business blocks in the present main part of the city, which were not even finished, tell the story of the sudden collapse of these old expectations.

Port Townsend has been living on the memories of those old hopes to too great a degree ever since. That boom fever left a certain virus in the blood. In that fact, however, Port Townsend has not been different from other communities of the Northwest; for we have all been living in a land of golden dreams. But Port Townsend has had over-great difficulty in recovering from those shattered dreams. Even yet the hope of winning back its old expectations by some sudden capture of a secret good fortune lingers in the background of the minds of many of the people; and there seems to be a sort of secret resentment against the development of

common work-a-day industries. There is a sort of fixed conflict between the memories of the old boom days and the stern necessities of the present. This makes the industrial problem all the more difficult and the educational problem extremely complicated. But nothing seems more necessary, to an impartial outsider, than a determination on the part of the common citizenship of the community to go back beyond those golden "boom" days to the more stirring and more stern pioneer days for the secret of the task that lies ahead and for the inspiration of the still unaccomplished great deed.

d. The civic life of Port Townsend is a rather strange one. Dating from the old days when its population was larger than at present in comparison with other parts of the state, Jefferson County has held a weighty position in matters of state government. And partly as a result of this, Jefferson County has furnished to the state some strong political leaders. At the present time Jefferson County and the city of Port Townsend can probably claim the citizenship of the strongest political leaders of the state. This makes the educational problem of the community all the more serious. The State of Washington is "not yet out of the woods." Political leadership of the state is likely to be found at various times in almost any of the communities of the state and this puts upon our local communities the responsibility for the development of a type of civic and political instruction intended to assure the development of sincere, public-spirited, whole-hearted, democratic intelligence. Nothing can be more fatal to democratic institutions than the growth of a civic leadership that roots itself in old boom dreams, in militarism, in contempt for common industry or in the theory of the right of the politician to exploit the community or the state for private purposes. Port Townsend and Jefferson County receive largely from the common

school fund of the state. Their responsibility to the larger civic life of the state should be proportionately large.

e. The old town site of Port Townsend, as has been intimated, covers a very wide expanse of territory, a very large part of which has been allowed to grow up with a second forest of small timber. The hills and valleys, the salt water that surrounds the city on three sides, and almost on four, the fresh water lakes that lie some miles out from the present city, but which were almost included within the old city limits, the mountains that lie beyond, and many other features that might be mentioned, make of Port Townsend's location one of the beauty spots of the world; a place of pure air, wide spaces, stimulating scenery and the possibility of a rich and varied life. But these same wide spaces, hills and valleys, second-growth forests, old buildings, dilapidated blocks and streets of the old time, together with the conditions that gather about military posts, make it also a city where extraordinary care must be taken to keep growing boys and girls from common evils. Not enough attention has been paid to the development of the resources that would make for a rich and generous play-life of the boys and girls. Something has been done to provide the chance for simple recreation for the community, but not enough has been done by any means; and while there is no intimation that lack of attention has led to more disastrous results in Port Townsend than in other cities of the same size, yet the fact remains that Port Townsend has not taken advantage of all its possibilities, has not lived up to its resources that might make for a wonderfully rich life of play, recreation, adventure, and amusement. And it is true that each recurring summer marks the enacting of social and moral tragedies in the lives of some of the children, especially boys. An old statement says: "To whom much has been given, from him shall much be required."

Port Townsend must realize more largely on its real resources along these lines; and make a larger provision in its educational program for the normal activities, adventuresomeness and energy of boyhood and girlhood.

f. The census bulletins give the following statistics showing the intellectual development of the population of Port Townsend:

Total number of population in 1910 of ten years and older..	3,565
Number illiterate	43
Total native white, ten years old and older	2,531
Number illiterate	3
Foreign-born white, ten years old and older	966
Number illiterate	24
The percentage of illiteracy in the state for 1910 was 2.4 per cent.	
The percentage of illiteracy in Port Townsend for 1910 was 1.2 per cent.	

This shows that the percentage of illiteracy in Port Townsend was about half that of the state-at-large.

Since 1910 the city has taken over and reorganized its old subscription library and made it into an efficient instrument which is working with what resources it has for the enrichment of the intellectual life of the city. The determination to make of the city a centre of real intelligence is found in the schools, in the library, and in the minds of the leading citizens generally. It has not been here implied in any way that such is not the case.

The determination to have the best possible community is not lacking in Port Townsend. The only significance of these introductory statements is this, that intelligence is not a thing that can be developed in the school, or library, or by the study of books alone. Its roots are deep in the industrial, economic, political and social world. The school's task is related to all these social aspects of the community life. The school's task is in reality determined by these various aspects of the whole life.

In the midst of a world of wonderful resources, with a vivid history, old compelling traditions and with its present capacities, Port Townsend's effort to develop the intellectual life of the children and the adults must be more and more closely related to all the other elements that enter the whole life of the community. The school cannot do these things alone. It is not fair to the school to ask it to do this. The school stands in the midst of the community. It is not the whole community. The task of the school is very real, but the teacher cannot cure with a few lessons or a little talk, what is being produced constantly by all the conditions of life and influence in the community. This is the community's tool for developing intelligence—not apart from the life and industry of the community; not even merely in addition to that life and industry; but in the midst of, and by, the very means of what the community itself is.

In the midst of Port Townsend, what should be its educational program?

The Educational Program of Port Townsend.—There is in the world to-day a natural and, for the most part, commendable prejudice against the purely theoretical. In spite of this, however, there is need everywhere of that larger outlook upon our social and educational problems which only a constructive theory, or view of the whole matter, can give.

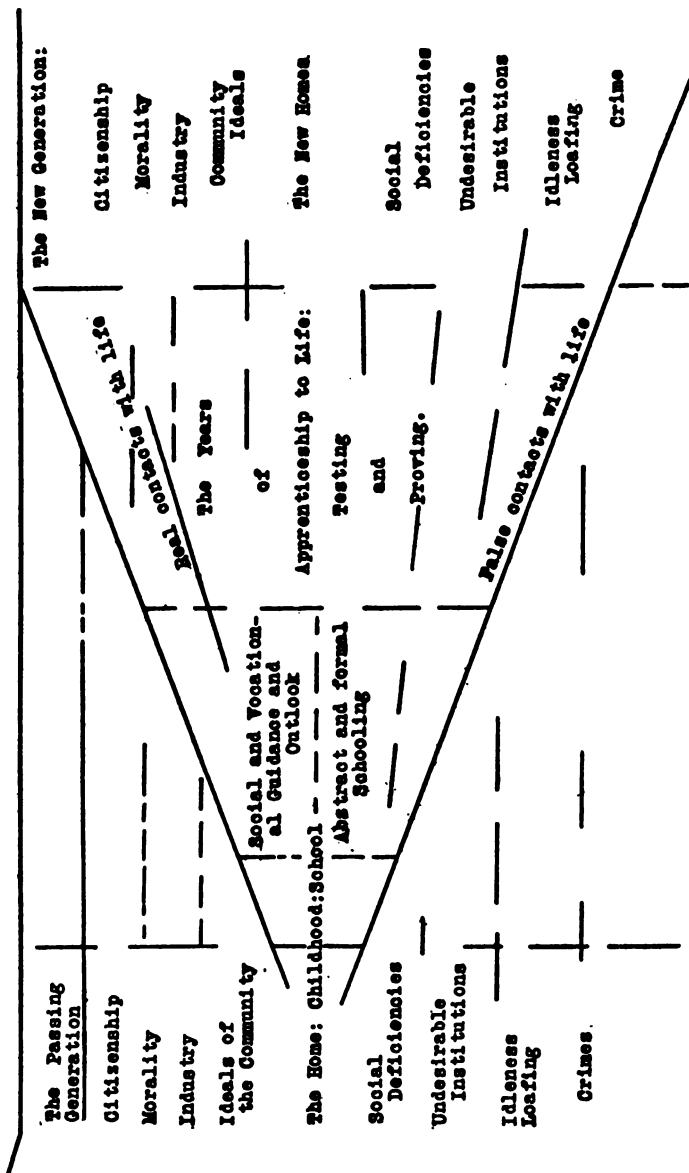
Port Townsend is a normal community of the state. It has its various lines of interests, its homes, its play, its social life, its religious life, its business and industry, its politics, its education. In all of these interests, problems arise. What shall these problems mean to the city? How shall they be met? In the previous section of this survey we have seen what is the social background of the school, and what the school is doing. But other educational problems still remain to be faced.

In the past three or four years the school system of Port Townsend has made commendable progress in the matter of making contacts with the life and industry of the city. But not enough progress has been made along these lines; at least there is still room for a very considerable development.

Everywhere schools are facing the question as to the real outcome of their work. There is presented herewith a chart showing the possible outcomes and the conflicting tendencies. In a state as new as our own, it is questionable whether any ideal or a purely abstract culture is allowable.

Ex-President Eliot of Harvard pointed out in a notable address some years ago that the heart of education, from the standpoint of the pupil, is his interest in a life career. He looks forward to a real place in the world and works with a will to win that place. Taking this statement as a clue, what opportunities does Port Townsend offer for a life career for its young men and women? At this point we come upon one of the discouraging phases of the local educational situation. Over and over again the statement is made, "There is nothing for a young man to do in Port Townsend." That is to say, it is said that the young man of energy must find his satisfaction in a vocational way by looking elsewhere.

Now it is true, of course, that no community lives wholly to itself, and the graduates of any school may very justly look out upon the whole state or nation, or even the world, as legitimate field for enterprise. But, when a community comes to include in its description of itself a contemptuous statement that it has no real field of enterprise, it sets up a situation that lacks something essential to education. Boys and girls who grow up to feel that their own community holds nothing for them,



grow up in danger of never establishing definite community relationships anywhere, and of becoming in all essential particulars like "a man without a country." The student who leaves his home community to work and live elsewhere should do so, ordinarily, not because there is nothing for him to do at home, but because there is a larger task fitted to his nature somewhere else.

What can the high school of Port Townsend do to broaden the range of vocational opportunity for its own graduates? Well, it can develop more definitely the ideal of work. It can help to open the eyes of the community, especially the eyes of the young, to the undeveloped resources which lie in the community itself. It can make actual contact with the industries which now exist, helping the young man and young woman to realize the relationship of these industries to both the economic future of the community and their own educational progress.

An illustration of this latter factor may be found in the so-called by-products plant established within the past year for the utilization of the refuse of the fish canneries and of those species of fish which do not enter into common consumption. At first this plant was objectionable to the city on account of its disagreeable odors. There were those who hoped that it would be unsuccessful on this account. Protests were made; but that particular phase of the plant's operation has been almost, if not quite completely, controlled. It is a small affair as yet, but it indicates a line of development of industry in the relations of Port Townsend to the sea; it indicates the possibility of development of new wealth in the community and of new and larger industrial enterprises. And especially a visit to the plant shows wherein the schools are failing to take advantage of a wonderful means of educational stimulation. The chemistry department of the

high school could make all the work of that department live in a new and vital way by showing students what chemistry is really accomplishing in the transformation of crude and even offensive materials into useful products and into new forms of wealth. Unlimited developments along these lines are here hinted at; but they are really just begun. Who can say what lies ahead of the city in these industrial and educational lines? Untold raw resources seem to be available; science waits to serve. How shall the formal lessons in science upon top of the hill be turned into actual preparation for a life of productive enterprise down on the water front? Let the schools answer.

Real beginnings have been made in the work in domestic science and manual training, but these exist at present not so much as means of contact with the life of the community, but as formal school subjects. The fate of such formal subjects is well known. They are likely to become lifeless and meaningless. They must be developed into actual lines of industry, leading beyond classroom exercises into home life and industry.

This development, however, must be a real coöperative enterprise between the school forces and the social forces of the community. In order to make this clear, an illustration will be given. There has been some agitation in the past year in the direction of developing school gardens. This has been partly in the school and partly outside of the school. But it is difficult to say what advantage will be gained from the development of school gardens if they are to remain as purely school enterprises. It has already been suggested in a previous chapter that agriculture should receive a larger attention by the citizens and educational leaders of Port Townsend. It has also been pointed out that the school needs to make closer

contact with the various industries of the community. How could school gardens be used to bring all these factors together?

Training in a school garden should have a real motive, not an artificial one. That is to say, such training should look ahead to the actual development of farmers or gardeners on the one hand, or to the development of a product that can actually enter into business life on the other. Such tendencies will not destroy the cultural values of the work; they will give life to it. The development of school gardens should be undertaken as a coöperative enterprise between the schools with their intellectual interests, and the social and commercial interests of the community. It would be possible for a garden club to develop a canning industry, using the products of their garden, having a marketing brand of their own and putting this product on the market. But this would require real coöperation on the part of the commercial interests of the community; or, it would be possible for the garden work to become real training for the life of a farmer provided there were enough sympathy with that life in the community at large to induce boys and girls to take it seriously. In either case, the motive for the work in the school garden would be real and the training secured would be genuine. But a school garden started merely as an annex to present school activities would probably become very meaningless. This, however, gives an excellent illustration of the possibilities in the way of coöperation between school, home, business and life-career as a means of developing both educational interests and community life.

Other lines of possible vocational re-direction of education in Port Townsend will readily occur to those who will look carefully over the possible industrial development in the city.

Another phase of this larger social problem is found in the provision or rather lack of provision, which the community has made for the normal development of the social, recreational and amusement demands of the people. If this question is to be taken up seriously, it might be well to return to some negotiations that were undertaken some years ago and not completed. How readily children respond to the influences of the world about them. They are as clay in the hands of the community. They are molded by the forces of life; they are developed by the chances to live; they are destroyed by the lack of opportunity. The responsibility of the community is plain. What is the reply?

That is also immediate: "We are willing to do anything needful for the larger life of the community—especially for the children, but we are now doing all we can afford to do—we are paying in taxes all we can afford to pay." That is probably true. But what of the new wealth that might be developed?

It is at this point that the real problem of coöperation between school and community comes most vividly to view. The school wants more money for the development of its educational program. Where that money is to come from is no concern of the school ordinarily. On the other hand, the community wants the very best educational results obtainable anywhere. How those results are to be secured is no particular concern of the community ordinarily. Yet in the long run results must be paid for; better teaching must be secured; and the two items come to the same end—there must be more money.

Again, community life cannot exist in a sort of social vacuum. Nor can education go on within the bare walls of a formal schoolroom. That community is the best educational institution in which the normal industrial,

commercial, professional, agricultural and domestic interests are sustained at a real pitch of interest and intensity. Such a community stimulates its children to real activities; it provides them with opportunities for learning; it calls to them to prepare for the active affairs of the world; it helps them to sense the significance of life by actual presentation of life itself under manifold forms of activity; and it opens to them the gates of life, and shows them the fair fields of Opportunity waiting for those who care to prepare.

These two great facts are correlative: the community wants a better system of education, but cannot afford it; the community needs more industrial interests, activity and opportunity. The development of the latter will bring about a larger wealth, thus bringing into the community use more money for community purposes without raising the tax rates. The schools benefit: they get the money they need, and they get the new stimulus, the new sense of activity from the more stirring life of the world without the walls. The community benefits: it gets the larger wealth, and with it the larger culture which the fuller resources can provide. Above all, it gets the sense of a new life in its blood, new impulses throbbing through every nerve, new hopes, now solidly founded, rising before its very eyes.

But the schools must learn how to be unafraid of business, work, activity, life. And business must learn how to be unafraid of the intelligence that is hinted at in the books. If these two results could be achieved; if industry and knowledge could return to their old relationships, and become acquainted once again; if they could enter into full coöperative partnership in the development of community life, bringing into ever fuller development of all that our hopes call for!

2. SURVEYS SHOWING EXAMPLES OF SMALL CITY AND TOWN HIGH SCHOOLS UNDERGOING PROCESSES OF REDIRECTION.

(1) *Rural Towns: Snohomish, Washington, as a Type.*⁸

General Characteristics.—Snohomish has a population of about 5000 persons. It is the centre of an agricultural, horticultural and dairying region. With the exception of a few sawmills, the important industries of the town are directly connected with some phase of agriculture, horticulture, or dairying. The usual mercantile establishments of a small city or town are represented.

The population is chiefly American, with a small percentage of Germans and Scandinavians. Skilled workmen and scientific farmers form a very small part of the population. The population may be considered fairly permanent for a far western town, rather than shifting.

The intellectual interests of the community are fairly well shown by the support given to the schools by the people through the school district organization, the libraries, the lodges, men's clubs, women's clubs, grange, etc. Some of these coöperative activities will be described later. Facilities for amusements consist of three moving-picture houses, a skating rink, dancing halls, and gymnasium; also, of athletic grounds at the high school.

Snohomish is well supplied with natural resources. Power is developed at Snoqualmie Falls. There are several undeveloped water-power sites on the Skykomish River about twenty miles from the town. Forests have been largely cut away from the adjoining territory. There is a large proportion of highly productive alluvial bottom land in the valleys of the Snohomish and Pilchuck rivers.

⁸ Data for this survey was furnished by C. W. Hodge, who was superintendent of the Snohomish schools when this survey was made, 1915.

The "logged-off" lands outside of the river valleys vary widely in fertility.

Having the comparatively simple conditions of life as above described, what should the schools do to satisfy the community's needs? Under the leadership of the superintendent and his associates, Snohomish has gone a long way toward solving its educational problems.

If the pupil's interests lie in part outside of the academic lines on the one hand, or even outside of the vocational activities of the community on the other, then the school activities corresponding to such interests are introduced, if possible. The aim is to make the high school as cosmopolitan as the needs of the community require. The fundamental need is that the boys and girls shall find themselves. With this working idea of the school, no subject as such has a "corner on the educational market," for its values depend upon its efficiency in satisfying felt needs. The curriculum of the school and the content and method of each branch, therefore, become flexible and pliant to the needs of the pupils.

The high school has become the object of coöperation for a number of community organizations. Clubs, lodges, associations, business firms, and individuals have become voluntary coöperative agencies in working for the school in many influential ways, and in making substantial money contributions. The Cosmopolitan Club has been active for several years in advancing vocational instruction in the high school, and has raised considerable sums in its support. The local grange is a strong coöperative agency for the school. The Farmers' Educational Association joins with the school in holding local institutes.

Among the new developments under way are the following: (1) A system of physical and mental examination of every pupil and provision for the proper treatment of all cases of defects; (2) a system of part-time or

extension work in the home; (3) the evolution of a body of school activities based upon the needs of the children in all stages of their development.

The Curriculum.—Four-year high-school courses are in full operation in the following subjects: Agriculture, manual training, home economics, commerce, art, and vocal music. Following are brief descriptions of the courses as developed by the superintendent and his associates:

Agriculture.—This is a full four-year elective course in the high school. The instructor is employed for the entire year. His services extend to the whole community as an expert adviser. To carry out the work of this department there is an agricultural laboratory equipped with a complete line of apparatus for all necessary analytical work and testing; a dairy laboratory with separators, Babcock testers, and other utensils; greenhouse and hotbeds; extensive library of standard works on agriculture and a large assortment of publications; farm-mechanics building with machinery for demonstrations; model chicken house, incubators and brooders; also four flocks of chickens; about two acres of ground for experimental purposes. Results may be cited as follows:

Forty-two high-school students are now (1914-15) majoring in this department. Four graduated from this department last year, all of whom are now attending the State College. Among the already apparent results of this department may be mentioned the marked awakening among the young people of a deep interest in the subject.

Home Economics.—Very few girls pass through the high school without taking from one to four years of this work. To carry out the work this department is provided with a kitchen equipped with ten gas ranges, a coal range, and a good general equipment of kitchen

utensils; a dining-room with linen, cutlery, and china for twenty-five guests; laundry and sewing-rooms, ten sewing machines. During the past nine years this department has paid its own grocery bills, thus insuring rigid economy. The girls who graduate from this department are able to make their own wearing apparel, even to a tailored suit and winter coat.

Commerce.—This department also offers a four-year course which includes bookkeeping, business arithmetic, penmanship, stenography, typewriting, commercial law, and multigraphing. To meet the needs the department is equipped with sixteen typewriters, duplicators, multigraph, and all other needed equipment for thorough and complete work. The enrollment of this department is always large, though the work is conceded to be heavy.

Music.—This is a four-year elective course, is well patronized, and the result is satisfactory as far as financial limitations will permit the work to be carried on. As a matter of justice to every pupil this department should be equipped to give instrumental training as well as vocal training.

Art.—This is also a four-year course in the high school, and includes a wide range of activities. This course offers all phases of free-hand drawing, including illustrating, designing, water-color work, work in oils, leather work, etc.; the department is well patronized.

The high-school enrollment for the State of Washington is approximately 14 per cent. of the entire public-school enrollment. During the past three years the high-school enrollment in Snohomish has been approximately 30 per cent. of its entire public-school enrollment. During the three years previous to this period it was over 26 per cent. No doubt this result is largely attributable to the introduction of the wider range of natural activities as the basis of the various courses. A large proportion

of the students who have majored in these activities are either following them as their life-work or are taking further preparation in the same lines in higher institutions.

The superintendent has adopted the plan of meeting community needs as rapidly as possible. Rather than wait for substantial buildings and good equipment for home economics, agriculture, and manual training, these studies have been carried on in mere shacks, which the district has been able to purchase or borrow, or which the superintendent and the students themselves have built. A great deal of the equipment has been made by the superintendent, teachers, and students, some of it has been donated by individuals and associations, and some has been purchased by the district. The district has provided excellent teachers in all lines, vocational and academic. The superintendent's policy has led the people of the district to be more generous in school expenditures through both tax and donation sources.

Neither the population nor the property value of the district is increasing. The tax limit has been nearly reached, hence there can be little more material expansion of the schools until considerable adjacent territory is added to the district. For several years the school district of Snohomish has been educating the children of high-school age as well as many of the children of grammar-school age from this territory. There ought to be some way found for compelling consolidation.

At least two large new buildings are needed to carry on the present activities of the high school, and a substantial increase in the maintenance fund to strengthen the pre-vocational activities in the upper grades of the elementary schools. There is, also, need of an evening school for adults and for a few pupils of high-school age who are unable to attend the day high school. An open-air gymnasium is, also, needed. In the Puget Sound climate

this inexpensive form of gymnasium is becoming popular. At certain seasons of the year it serves as an exhibit building for the county fair and sometimes as a voting place for school or municipal elections.

Contrary to what one would expect in a school of this sort, there is an almost complete absence of recreational activities, no athletics of any kind, although good tennis courts, race-tracks, baseball and football grounds were constructed several years ago, no interclass or interscholastic debating, no literary societies, and no high-school band or orchestra are provided. There are apparently two reasons why this condition exists: (1) A large number of students are so interested in the industrial activities that they prefer to spend their extra time in the shops; and (2) a large number of students coming from the farm have never learned to play collectively or individually.

Rural communities generally lack greatly in coöperative and recreational social activities. Farmers are seldom able to organize associations and keep them intact to enable them to market their produce advantageously. They are quite generally at the mercy of the commission merchants and transportation corporations because of their inability to organize effectually. Again, the lack of the recreational spirit and habit in rural life needs to be corrected. A variety of social activities is essential in developing a higher grade of citizenship. The school of the rural community should promote this side of education.

Each teacher is given a great deal of freedom in developing his own branches and methods of instruction, and on the whole the instruction in the various departments is excellent. However, each department is too much an independent unit in itself. The instruction in physics, chemistry, history and civics, general science,

biology, mathematics, commercial branches, and English is only incidentally and accidentally related to the home economics, agricultural, and manual-training courses of the high school. By this statement is meant that the sciences are not applied to practical problems arising in the vocational branches. Neither do the sciences as they are taught aim to give breadth and outlook to the vocational branches. The work in mathematics proceeds along traditional lines. Bookkeeping is not applied to home and farm problems. English composition does not use the very interesting content of the vocational courses; there is no attempt to form word designs for the various articles made in the manual-training shop, or for the experiments in agriculture and home economics. History and civics are treated along the usual lines. One exception was found in the literature classes, where considerable emphasis was laid upon current literature dealing with important social questions of the day.

Again, a strong social core of history, economics, civics, hygiene, and sanitation is lacking. Searching work in this group of subjects dealing with present civic, economic, and health problems must be prescribed for all students if we are ever to approach the realization of the ideal American citizenship.

The school is in good condition to reorganize its instruction along the lines indicated in the foregoing paragraph. Each teacher has charge of four eighty-minute periods a day. Each period is divided approximately into halves, one-half for recitation and the other for study under the supervision of the same teacher who conducts the recitation. This plan breaks up the formality of the work; gives the teacher an opportunity to find out the needs of the individual pupils, and to provide materials and conditions for effective study; makes unnecessary much of the former formal quiz-master tactics

in the recitations; and finally it gives the teacher an opportunity to effect correlations between her branch and other branches of the school. For example, an opportunity is thus afforded for the English-composition teacher and the manual-training teacher to confer on compositions about shop projects worked out, or to be worked out by the pupils. The English teacher should judge primarily of the form side of such a composition and the manual-training teacher should judge primarily of the accuracy of its contents. Such theme work would be equally valuable in the work of both teachers. If Snohomish continues to employ such an able superintendent as the present incumbent, we may confidently expect the foregoing suggestions for improvements, and many more, to be successfully carried out.

(2) *Mining Towns: Roslyn, Washington, as a Type.*⁴—Roslyn is a coal-mining camp with no agricultural lands in the vicinity, located in a canyon at the foot of the Cascade Mountains on a branch of the Northern Pacific Railway. It is a compact community of about 4000 persons.

The population is more or less shifting, although about 50 per cent. of the families own their own homes. The sole cause for the existence and growth of the town is the development of the coal mines. The town will not grow, therefore, except as the mines need an increase in the number of miners. It is estimated that the coal veins are sufficient to keep the company operating at the present rate for fifty years. It appears unlikely that the company will greatly increase its present output, so that very little increase in the total population may be expected. On the other hand, the birth-rate is very much larger than

⁴ Data for this survey was furnished by Linden McCullough, who was superintendent of the Roslyn schools when the survey was made, 1915.

the death-rate. This means that an increasing number of children must grow up either to take the places of those who come from other mining regions in the United States and Europe or to leave the community and find employment elsewhere. The latter seems to be the tendency for the great majority of young men at the present time. There is a strong tendency for the sons of miners to enter other occupations outside of the town, and, of course, many of the daughters go with them.

About 75 per cent. of the population is foreign-born. The population is composed of a large number of different nationalities, some 25 or 30 in number. Of the males 95 per cent. are coal miners, or, stated in another way, there are 1490 men working in and around the mines. Other employments of the town require about 300 men.

The eight-hour day is established. The minimum wage is \$3.80 a day (1915), and helpers receive \$2.40 and up. Many miners working by the piece system make \$5 to \$7 a day.⁵ However, the work is not steady at all times. At present there are very few accidents. The miners have formed an association which employs physicians and nurses. This association also provides training for the miners in the first-aid and mine-rescue work. The town is fairly free from disease, although there is a strong tendency toward tuberculosis. In case of accident or sickness of the miners, aid may be secured under the state industrial insurance law.

The usual home of the miner is a rough board house, much too small for his family, poorly ventilated, but usually fitted with a sanitary toilet and bath.

There is a very good Young Men's Christian Association adapted to the miners' use, (1) by omit-

⁵ In 1919 many diggers, or miners, working by the car-load, earned as high as \$17 a day. The diggers for all the mines averaged \$8.50 per day, but, of course, here, as elsewhere, work *was not steady*.

ting all religious exercises; (2) by furnishing a well-equipped gymnasium, with swimming pool and shower baths in connection; and (3) by a rather poorly-equipped library and reading-room of 1000 poorly-selected books. The Hvarteka Sokal has a clubroom and gymnasium. Each nationality has a lodge, and most of them have women's lodges accompanying them. The union organizations have built an opera house and dance hall. This contains quarters for union meetings. All labor is organized locally and nationally. The Moose and Eagles have clubrooms. The following lodges have strong membership: Masons, Knights of Pythias, Knights of Columbus, Foresters, Woodmen of the World, Odd Fellows, Moose and Eagles. There are about 30 secret societies in the town. The churches of the Catholics, Episcopalians, and Presbyterians serve the people in a social as well as a religious way. Besides these, there are the Baptists (colored), Free Methodists, Latter-day Saints, and Lutherans represented. None of these latter support a local minister.

In view of the data given above, what local adjustments should be made by the Roslyn High School? In the first place, it is clear that many things could be taught which are not directly vocational in character, but which, nevertheless, grow out of the vocations of the community. Perhaps one of the most important needs is that of a strong evening school for the adult miners and their wives. Under the direction of Superintendent Linden McCullough, considerable progress in this line is being made. An evening school was started this year (1915) with an average attendance of 200. The chief aims of the evening school in Roslyn are to give instruction in the English language and in personal and social hygiene. As the work develops, emphasis will be placed upon the hygiene of the home. The women will be taught

the various phases of home management. Civics will, also, become important, and will begin with the miner's occupation, his union, and his community. In connection with the day and evening school, wholesome entertainment and other social features will be provided to take the place of the 19 (social centres) saloons. The superintendent writes that the high-school building will soon be used every night for some social purpose. The board of education has recently given permission for the use of the high-school building twice each month for dancing purposes, with a provision for restricting the hours of beginning and ending the dances, and with the additional restriction that the high-school boys and girls refrain from dancing in other places.

The small enrollment of the high school shows a need for continuation school work. Of the total enrollment of 747 pupils in 1914, only 51 were enrolled in the high-school grades. The high-school enrollment was less than 7 per cent. of the total, while the high-school enrollment of the state was 14 per cent. of its total enrollment.

A very few boys and girls of high-school age are employed in the mines and other occupations. If they are not in the industries or in the high school, where are they? In the first place, in a town of cosmopolitan population we may expect to find a large number of boys and girls of high-school age still attending in the grades; in the second place, many of the girls are helping their mothers take care of large families, and, lastly, there are a number of boys doing nothing.

While the boys of high-school age in this place should be given the last word concerning the mining industry, their vocational training should not be confined to that industry or even to all the industries of the town. The industrial outlook of such a town is altogether too limited to warrant such a procedure. Observation leads us to

believe that the inside work of the mines should be done only by strong men. Occasionally a strong boy may thrive digging coal alongside of his father. On the other hand, the machine shops would offer an excellent opportunity to a few high-school boys for part-time instruction. The machine shops of the mines carry on a great variety of operations which would give the boys an excellent training. Other opportunities for part-time instruction would be afforded by the various stores and small industries of the town. Yet there is no doubt that the vocational opportunities are far too limited for all the boys of the community. To overcome this condition, substantial courses designed to exploit a wide range of vocations should be organized. In other words, prevocational instruction, with much emphasis upon vocational guidance, should be made an important aim of the school.

After all, the most important redirection of education in this community will not consist so much in developing vocational instruction, *per se*, as in teaching the rising generation, as well as the adult population, how to live in their vocations, in their homes, and in their community.

English, civics, hygiene, applied science, industrial history, industrial art, and music adapted to the needs of the pupils, should be emphasized. Agriculture should, also, be emphasized, (1) as a possible vocation for a large number of miners' sons and daughters; and (2) as related to the development of flower and vegetable gardens, which are so sadly needed in this plantless town.

Again, the school has a tremendous responsibility as well as an excellent opportunity in this place to develop recreations and recreational facilities. The school's influence upon happy, clean, wholesome living in this community should go beyond that of all other local institutions, not excepting the churches. It could become the veritable "melting-pot" of the races.

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